



A Weekly Journal of Pharmacy and the Drug-trade.

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THINGS TO THINK OF.

ENTERPRISING manufacturers of druggists' goods who have not given their orders to the publisher of *THE CHEMIST AND DRUGGIST* for advertisements in the Summer Issue are reminded that it will be published in the week ending July 29.

The issue will circulate at home and abroad to the best buyers of their goods, that is, to those who are in business on their own account, and who make their living by selling the goods.

The circulation to Colonial and Foreign business-men is numerically less than that at home, but it is not less valuable in responsiveness. Buyers abroad who read *THE CHEMIST AND DRUGGIST* are noted for the methodical manner in which they read the advertisements, and order goods from them.

The following are some figures from the British Board of Trade Returns for June, dealing with exports of goods of British manufacture only during the first half of the year:

	£
Total chemical exports	7,585,978
Exports of medicines	703,923
Exports of condiments	368,411
Exports of scientific instruments (including surgical, but not electrical)	283,786
Bottles	203,554
Brushes and brooms	74,928
Soap	682,061

There are many other articles handled by our subscribers not enumerated, and it may be said that this export business which the Summer Issue will tap is worth at least Two MILLIONS STERLING PER MONTH. To get some of that spend a little time and money on an effective advertisement in the issue, and the Publisher offers the assistance of his staff of designers in putting ideas into shape. He should be addressed as early as possible on the subject, as the time is now getting short.

Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

THE ST. LOUIS EXPOSITION diploma is reproduced on p. 111.

The few alterations in Store-prices this month are given on p. 78.

THE CAPE COLONY POISON SCHEDULE has just been added to, and particulars are given on p. 108.

THERE are now twenty papers for the British Pharmaceutical Conference meeting at Brighton (p. 99).

The questions given at the Fairchild Scholarship examination this week are printed in the Supplement.

MR. PATRICK KELLY has been appointed Professor of Chemistry to the Pharmaceutical Society of Ireland (p. 107).

THE names of those who have passed the Spectacle-makers' Company's examinations this month are printed on p. 78.

AN IMPORTANT DECISION regarding the sale of Apollinaris water in France is reported by our Paris correspondent (p. 90).

"XRAYSER" is not satisfied with the new Latin of the United States Pharmacopœia, and he gives his reasons why (p. 89).

THE NATAL PHARMACEUTICAL SOCIETY has had a prosperous year, and the complete official report is communicated to us, and printed on p. 109.

MR. J. SLINGER WARD, a well-known London wholesale druggist, died on Wednesday. Dr. Churchill, who introduced hypophosphites for consumption, is also dead (p. 100).

THE Cork Chemical and Drug Co., Ltd., are seeking to restrain Mr. Joseph Fielding, Ph.C., a late assistant, from trading as a chemist in Cork. The case is reported on p. 85.

It is stated that Devereux, the chemist's assistant who is waiting trial on a charge of murdering his wife and children, is mentally afflicted, and refuses to assist his solicitor in his defence (p. 78).

THE TRADE-MARKS BILL has been amended in several important particulars, and is now going ahead (p. 101). We also observe that General Laurie has carried his Medical Bill to the Committee stage.

IN a Coroner's inquiry, held in London by Dr. Waldo, the facility with which hydrochloric acid is obtainable was commented upon by the Coroner and a jurymen, and the need for restriction was advised (p. 78).

THE last six months' import and export business of the United Kingdom is reviewed in an article beginning on p. 90. So far this year our exports of manufactured goods are ahead by nearly eleven millions sterling.

WE continue our review of the new United States Pharmacopœia, and include in our notes the gist of a conversation with Dr. Virgil Coblenz in regard to the steps taken to ensure fair standards for medicinal chemicals (p. 110).

MR. JUSTICE JOYCE has delivered his judgment in the aspirin patent case, holding that there was prior publication of the process for preparing acetyl-salicylic acid by Kraut in 1869. He therefore dismissed the motion by the Bayer Co. (p. 81).

THERE has been a strong undertone of business on the drug-markets during the week, and several important changes are noted as having taken place, or as imminent. Salicylates and salol are higher, and citrates in sympathy with the rise in citric acid (p. 104).

MR. ALEXANDER CROSS, M.P., asked the President of the Board of Agriculture, on Thursday, when that Poisons Bill is to be introduced. Mr. Fellowes said it is Privy Council business, but he is addressing that body with a view to the introduction of the Bill at no distant date (p. 101).

THE Bile Beans case has been before the Edinburgh Court of Session this week, and the evidence, though lengthy, was interesting, especially on the assertion by the proprietors that the beans contain Australian plants (not sustained in evidence), and on the question whether they are the same as P. D. & Co.'s pill No. 160. Dr. Lewkowitsch gave expert evidence proving that they are not No. 160 (p. 82).

THE annual meeting of the Society of Chemical Industry was held in London this week, many American and Canadian members being present, and Dr. W. H. Nichols, of New York, presided. He delivered an address, in which he described the organisation of a modern chemical industrial enterprise. Dr. Divers was elected President for the ensuing year. The Society will meet in Manchester in 1906. There have been many social functions in London this week, and all are reported in the section which begins on p. 93.

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, Ph.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

Stereochemistry.

By W. W. TAYLOR, M.A., D.Sc.

Space Model of the Carbon Atom.

IN most of its compounds carbon is undoubtedly a quadrivalent element, carbonic oxide CO being a notable exception, and the four valencies or affinities are supposed to be of equal value. The simplest arrangement in space of a carbon atom, with four atoms or groups attached to it, is a sphere with the carbon atom at the centre, and the four groups equidistant from each other on the surface of the sphere, and, therefore, symmetrically arranged with respect to the carbon atom; if the four groups are identical, this seems to be the most probable arrangement.

These four points are the apices of a regular tetrahedron, whose centre is that of the sphere, and so the carbon atom is represented by a regular tetrahedron, and the normal directions of the attractive forces called valency are represented by the four lines connecting the apices with the centre. These four affinities are obviously arranged symmetrically in space with respect to the carbon atom. This is the translation into a space model of the ordinary graphic formula, in which the carbon atom is at the centre of a circle, and the four groups are at four equidistant points on the circumference. It should be remembered that there is no evidence that the carbon atom is a tetrahedron; it is a convenient way of expressing known facts and of predicting others, and that is all that is required of any theory.

It is not easy to follow the various phases of stereochemistry without recourse to models, and every student is strongly recommended to procure or to make a few models, and convince himself of every statement.

Eiloart's models are probably the most convenient, but they are expensive; they are solid wood, with brass tubes in the apices accurately directed to the centre; solid or hinged brass rods serve to join up the separate tetrahedra, and the groups are represented by tin caps, which spring on to the apices, the formula of the group being printed on each side of the cap.

Cardboard tetrahedra are easily made (each of the four surfaces is an equilateral triangle), and small glass or metal tubes can be cemented in the apices, the groups being shown by pieces of card or metal mounted on wooden rods. Perhaps more convenient are skeleton models, which show the four lines connecting the apices with the centre. Two brass or iron wires, of moderate thickness, are soldered together at the middle, at right angles to each other. The limbs are then bent until they are approximately at the correct angle to each other. This angle is $109^{\circ} 28'$, and the adjustment is easily effected by means of pieces of cardboard cut to that angle. Small corks, coloured or with pieces of cardboard cemented in, can be pushed on the wire-ends to represent the different groups.*

* In Perkin and Kipping's "Organic Chemistry" it is stated that a set of two models of indiarubber tube and wooden balls of different colours to represent the different groups can be obtained from Baird & Tatlock (14 Cross Street, Hatton Garden, London, E.C.), at a cost of eighteen-pence.

A set of two models will be sufficient in the first instance; four will serve in all but a few cases.

In the use of models there is no need to represent every carbon atom of the formula by a tetrahedron, though, of course, it may be done. For instance, the groups $-\text{CH}_3$, $-\text{C}_2\text{H}_5$, $-\text{C}_3\text{H}_7$, the aldehyde group $-\text{CHO}$, the carboxyl group $-\text{COOH}$, can be treated like $-\text{H}$, $-\text{Cl}$, etc., as univalent groups, and be represented by coloured balls or cards, after the student has convinced himself by means of models that these groups cannot be arranged in more than one way. In doing this he should make up the group in one way and then attempt to make up another model in a different way; if it is found that, by turning the second model round, it can be brought into the same position as the first, the two arrangements are identical.

Note to Students.—This series of articles will continue until the end of September, when a set of problems and questions will be submitted for reply by students. Prizes will then be awarded for the best papers sent in.—THE EDITOR.

English News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

In Deptford last year fourteen samples of cod-liver oil, five of olive oil, five of arrowroot, and two of ground ginger were examined, and all were found genuine.

At Wymondham on July 5, a labourer named Sesse was committed for trial on a charge of obtaining goods by false pretences from Mr. Peter Cheyne Watt, drug-merchant, Hingham.

At the Hants Assizes at Winchester on July 6, a man named Hendy was sentenced to twelve years' penal servitude for throwing vitriol at Louisa Adeline Pottle, with intent to disfigure her.

At Norman Cross on July 11, a gamekeeper named Smith was fined 10*l.* and 20*l.* 11*s.* costs for placing strychnine near Flittimore Gorse and Glatton Folly, and poisoning foxes, dogs, and cats.

The Board of Agriculture has published a list of eighteen agricultural colleges and university departments who will undertake for a fee of 6*d.* to give the percentage of butterfat in milk. This is cutting with a vengeance.

At Chadderton on July 5, a thirteen-year-old lad named Cooper was bound over under the First Offenders Act for stealing a box of sarsaparilla, value 6*d.*, from the shop of Messrs. Robert Clegg & Co., chemists, of Croft Road, Royton.

The Rankin's ointment cases which were expected to be heard in Manchester on Wednesday this week did not come off. Our reporter there, writing on Wednesday evening, says: "No charges or summonses against chemists of any description were heard at either the City or the Manchester County Police Courts to-day."

At the Hanley Fêtes last week, one of the most popular items was the balloon ascents of Mr. Percival Spencer and Miss Viola Spencer. Local pharmaceutical enterprise was demonstrated by the throwing from one of the balloons of a number of coloured handbills, advertising the specialities of Mr. R. G. Emery, chemist, Stoke.

The members of the Essex Field Club were entertained by the Countess of Warwick at Easton Lodge on July 8. After the luncheon a meeting was held, under the presidency of Mr. David Howard, for the purpose of inaugurating a photographic and pictorial survey and record of Essex. The objects of the scheme were explained by Mr. Miller Christy.

At Marlborough Street Police Court on July 7, Joseph Antoine Louis Lobjois (38), a chemist, was charged, on remand, with stealing and embezzling, since May 1902, sums of money amounting to 1,642*l.*, belonging to his employer, Dr. Jules Bengué, a chemist, of Paris and Great

Titchfield Street, W. Counsel for the prosecution said that prisoner, who absconded to America, had been in the employment of the prosecutor, at a salary of 250f. a month and a commission. After a time it was found that Lobjois had not accounted for certain moneys he had received. Evidence having been given, Lobjois was again remanded.

Birmingham Notes.

Dr. Robert Saundby is succeeding Professor Windle as the university representative on the General Medical Council.

A new dental hospital in Great Charles Street was opened by Sir Oliver Lodge on Thursday. It has cost 10,000l., of which Mr. William Cadbury gave 1,000l., and 2,000l. came from the Best bequest. At the luncheon Sir Oliver asserted that brains and teeth cannot exist together.

To such students as are not familiar with miners' terms for obnoxious gases, it may be stated that a young collier was poisoned in a Dudley pit by what is known as black damp. This is carbon monoxide. Fire-damp and choke-damp are better-known synonyms for marsh gas and carbonic acid gas respectively.

Before an audience of 200 people, many of whom were lady students, Professor Frankland on Monday delivered his presidential address to the University Chemical Society, taking as his subject some phenomena (physical and chemical) at the temperature of liquid air. Some brilliant results were obtained, special praise being bestowed upon Mr. Procter, the assistant, who is not unknown to Midland pharmacists. There was a fair sprinkling of local pharmacy representatives.

Midland Pharmaceutical Association.

At a meeting of the Council, held at the Grand Hotel, Birmingham, on Wednesday, July 12, Mr. A. W. Gerrard was re-elected President and Messrs. W. H. Jones, F.C.S., and A. W. Southall Vice-Presidents; Mr. Jeffrey Poole was appointed Treasurer; Mr. J. A. Radford agreed to retain the Secretaryship at the earnest request of the meeting; and Messrs. T. Chase and T. Corfield were elected auditors. Mr. T. Barclay moved a vote of thanks to the retiring auditors. The President referred to the success attending the recent joint picnic, and it was agreed to send a letter of thanks to the Earl of Lichfield for the permission given to visit his fine grounds.

A meeting of Midland pharmacists followed to consider the proposal to invite the Pharmaceutical Conference to Birmingham in 1906. Mr. Gerrard announced that several preliminary meetings had been held, but it had been impossible to do more than discuss methods of procedure until the invitation had been formally made to the Conference and accepted. A discussion of a conversational nature followed, and it was resolved that the Midland Association delegates at the Brighton Conference should offer to the Conference a cordial invitation to come to Birmingham in 1906. The following were appointed delegates to the Brighton Conference: Messrs. Jeffrey Poole, C. Thompson, F. Smith, G. E. Perry, F. J. Gibson (Wolverhampton), and Alderman Cross (Shrewsbury).

East Anglian Notes.

Hunstanton was visited last week by the employés of Messrs. Hills & Underwood, of vinegar and S.V.R. fame. The firm bore the entire expense of the outing.

Norfolk chemists must expect a little more energy on the part of the urbane gentlemen who make certain purchases then divide the result by three. A letter from Whitehall to the Norfolk County Council bears the complaint of an insufficiency of samples taken. What few have been examined have, according to Lord Kimberley, shown great purity.

The purity of the Norwich water-supply has of late been troubling the man in the street, and local chemists have frequently been appealed to. Mr. Francis Sutton, F.I.C., the city analyst, has made an exhaustive chemical and bacteriological examination, and reports this week that a better water-supply could not be desired, boiling or filtration being quite unnecessary for ordinary purposes.

Sheffield Notes.

At the annual meeting of the Sheffield Photographic Society, held on July 4, Mr. J. Gilbert Jackson, chemist and druggist, was re-elected a member of the Council.

In connection with the Royal visit on Wednesday, Mr. J. F. Eardley, Ph.C., contributed four guineas to the fund for decorating the route from Regent Street to Hanover Street, and Messrs. Boots, Ltd., 2l. towards the same fund. Among the contributions to the Royal Reception Fund was 25l. from Messrs. Newton, Chambers & Co., Ltd.

The "Sheffield Daily Independent" a short time ago published in their "London Letter" a cheap sneer at the Pharmacy Bill, and failed to print a reply which Mr. Newsholme promptly forwarded. Local pharmacists have consequently been thinking hard things about that journal, which on July 10 heaped coals of fire on their heads in a leading article. The conclusion of the article is worth quoting:

Taking all the circumstances into consideration, there seems to be no real need for any relaxation of the law relating to the sale of poisons. Farmers can get their requirements served at the nearest market town, and the purchase of chemicals for the crops must often furnish them with an excuse for attending market when they are in sore need of one. The deputation to the Minister of Agriculture stated with much truth that farmers suffer no real grievances through the present restrictions upon the sale of poisons. The chemists would, on the other hand, suffer a real grievance if every village shopkeeper were to be again permitted to deal in deadly poisons, under the specious pretence of assisting agriculture.

Torquay Topics.

Timothy White, Ltd., intend opening a branch in Union Street, Torquay, next week.

Torquay being the scene of the naval manoeuvres has been visited by a very large number of battleships and torpedo-boats, and this has stimulated business considerably.

The premises occupied by Mr. Ness, chemist, Market Street, Torquay, having been sold, Mr. Ness has been compelled to remove to other premises in the same street.

The old-established dispensing business carried on for so many years by the late Mr. Edward Smith, and latterly by Mr. Jefferson, at 8 The Strand, Torquay, has been closed and the premises are now "To Let." The stock has been purchased by Mr. Douglas, Victoria Parade, Torquay.

A largely attended meeting of the Torquay Chemists' Association was held on Monday, July 10, at the Pavilion Hotel, Mr. Quant presiding, when an interesting discussion took place upon local matters and co-operative buying, which system it was suggested might be considerably extended.

Contracts.

The following contracts have been settled:

Dartford Urban District Council.—Mr. F. W. Hunt, for disinfectants at 9l. 11s. 10d.

Wigton Board of Guardians.—Mr. J. Shadwick, chemist and druggist, to be chemist to the workhouse for the ensuing quarter.

Salford Town Council.—Messrs. G. J. Blore & Co. and Mr. Arthur Roberts, for the ensuing year's supply of druggists' sundries.

Twickenham.—Mr. C. J. Garibaldi Bunker, chemist and druggist, to supply medicines, drugs, and medical sundries to St. John's Hospital for six months.

Cheltenham Board of Guardians.—Mr. W. H. Hill, for disinfecting-fluid at 1s. 5d. per gal., and rolled sulphur at 10s. per cwt.; Messrs. Silk & Son, for Savory & Moore's food at 9s. per doz. tins (1s. size).

The Warmley Board of Guardians on July 6 discussed at some length a recommendation from the Local Government Board that expensive drugs and medicines for the poor should be supplied by the Guardians, instead of by the medical officer out of his salary. It was asserted that under the latter system the poor might be given a cheaper drug or medicine than was desirable. Eventually the Board deferred the matter for future consideration.

Society of Chemist Opticians.

A Council-meeting of the Society was held on July 5, at 42 Cannon Street, E.C. Mr. J. R. Cornish (President) was in the chair, and there were also present Mr. J. H. Cuff (Hon. Secretary), Mr. J. H. Hopper, Mr. Rex Blanchford, and Mr. Woolley. Mr. G. A. Morris, Rochester, was elected a member. The proposed new rule was again discussed, and it was agreed upon in the following form:

Registered chemists desiring to qualify for the optical profession may be elected "associates" of the Society, but shall not be allowed to vote or hold office.

The amendments of other rules rendered necessary through the new rule were made and the "objects" of the Society were rearranged. A general meeting of the Society, which is required before new rules can be adopted, is to be called for July 26.

The Spectacle-makers' Company.

At a quarterly Court meeting of the Company of Spectacle-makers on July 10, the Director of Examinations, Mr. Past-Master W. H. E. Thornthwaite, F.R.A.S., presented for adoption, on behalf of the Board of Examiners, the following list of successful candidates for the Diplomas in General Optics and Sight-testing, who entered for the recent examinations in London:

Passed Special Examination.

Green, W., London
*Marchant, W. S., Highbury

*Rigby, W., Barnsley

Passed General and Sight-Testing Examinations.

*Wood, J., Aylesbury
Bamber, J. D., Manchester
McNeil, Greenock
*Bufton, W. R., London
Farnworth, S., Manchester
McBryde, J., London

Field, T., Aylesbury
*Nichols, W. H., London
Turner, J., Ramsgate
Wenban, A. T., Wimbledon
Jacobs, J., London
*Moore, F. H., Derby

The following diploma-holders passed the examination in sight-testing:

Ive, A. F., Worthing
Smith, J. A., Harrow
Fielder, A. E., Portsmouth
Ainsworth, J. A., Southampton
Ganter, F. S., Dublin
*Garlick, T., Newbury
*Littlefield, W. H., Ventnor
Wallace, J. D., Alloa
Aikenhead, J., Dumbarton
Whiting, W. J., Newcastle

*Tugwell, P. T., London
Thompson, A. T., Leigh
*Corner, E., London
Lennie, C. D., Dundee
Newbold, B., Manchester
*Flint, C., London
Smart, B. A., London
*Jones, W. M., Aberystwyth
Cave, S. A., Deal
*Baxter, Mrs. M., Leeds
Lyon, C. Y., London

The asterisks indicate chemists.

Five candidates sat for the special examination; two failed. Forty-two candidates sat for the general examination; twenty-one failed. Forty-eight candidates sat for the sight-testing examination; fifteen failed.

Upon the recommendation of the Board of Examiners the Court of Assistants have granted under special circumstances the Diploma in General Optics to Messrs. Norman Parsons and C. Y. Lyon, both of London, who passed the modified examination in 1898 and 1899 respectively.

Liverpool University.

The conferring of degrees at Liverpool University took place, under the presidency of Lord Derby, at St. George's Hall, Liverpool, on July 8. Sir Joseph Wilson Swan opened the new laboratories, which have been erected at a cost of 10,000/. Lord Derby remarked that amongst recent benefactions were 10,500/. by the President of the University Council (Mr. Muspratt) for the physical chemistry department; 10,000/. to endow a French Chair in memory of Mr. James Barrow; 8,000/. under the will of Mr. J. G. Bowes for departments of modern languages and chemistry; and 10,000/. from the Liverpool City Council.

Store-prices.

The July circular of the Civil Service Stores contains the following price alterations:

ADVANCED.—Frame Food jelly, 9½d. per bott.; Holloway's pills, 1s. and 1s. 6d. per box; rhubarb root, 8½d. per oz.; St. Jacob's oil, 2s. 3d. per bott.; rectified turpentine, 10d. per pint and 1s. 7d. per quart.

REDUCED.—White vaseline, 7½d. per bott., camphorated, capsicum or carbolated, 9½d. per tube; vaseline hair-tonic, 9½d. and 1s. 8d. per bott. (2s. 8d. size withdrawn); vaseline soap, 6d. per tab.

"Rosaline" for "Erasmic."

At Stratford Police Court, on July 1, George Palmer, a dealer, of Evelyn Buildings, Gray's Inn Road, was charged with obtaining 4d. by means of false pretences from a girl named Grace Sexton. Mr. C. C. Sharman, who prosecuted, said the proceedings were at the instance of the Erasmic Soap Co., and though the charge against the defendant appeared to be a paltry one, the matter was of great importance to the Erasmic Co. They sold their soaps in boxes at 1s. for three tablets, and of late had had complaints about it. On three Saturdays latterly defendant had taken a stand in Green Street, Upton Park, selling soaps in fancy

boxes. The soap "smelt nice and looked pretty," and defendant, describing it, it was alleged, as "Erasmic soap," had sold it at 4d. per box of three tablets. It was not, however, Erasmic soap, and that fact was the basis of the charge of false pretences. Grace Sexton, a girl of about fourteen, described some of the prisoner's statements and said she believed it was Erasmic soap he was selling, and bought three tablets for 4d. Stanley Emerson gave evidence that he heard the prisoner say he had soap made by the Erasmic Co., of Oxford Street, and he bought three cakes for 4d. The defendant said that "Erasmic" was a slip of the tongue—he ought to have said "Rosaline" soap. He had sold hundreds of pounds worth of Erasmic soap, and had been used to saying "Erasmic." No one, he said, could expect to get that soap for 4d. a box, and there was no label or name on the box. This was a Parma-violet perfumed soap. Mr. Sharman suggested that the prosecuting company would be satisfied if defendant were bound over under the First Offenders Act. This was done, and defendant was ordered to pay 14s. costs.

The Successor to Carbolie Acid.

Dr. F. J. Waldo, the City Coroner, held an inquest on July 7, at the City Coroner's Court, on the girl Ethel Fullbrook, whose death from spirit-of-salt poisoning was recorded in last week's issue (page 40). Evidence of purchase was given by Albert Burleigh, an assistant in the shop at 251 Upper Street, Islington, owned by Parke's Drug Stores, Ltd. Witness said he was not a qualified chemist, but "only an assistant in the shop." The Coroner addressing the jury, said it was a curious state of the law that allowed a person to sell a deadly poison like spirit of salt to anyone that asks for it, and yet beer bought by children must be sealed and corked. Witness said the girl asked for sixpennyworth of spirit of salt for cleaning-purposes. That was not a large quantity if it were genuinely wanted for cleaning-purposes. The Coroner: There is no law that compels chemists to put it in a certain kind of bottle. Witness: Only the colour. The Coroner: I have never seen a law as to that. Witness: Well, perhaps it is not law, but anyway it is an unwritten law that the bottles must be either blue or green. The Coroner said it was a step in the right direction and an indication that chemists had decided that there is a great danger in the sale of the poison. The foreman of the jury said he had never heard of such a state of affairs before, and that he would do his utmost to let everyone of his acquaintances know of this strange condition of things. He thought, like many other people, that such poisons were very hard to get. The Coroner: Unfortunately, there are too many that know how easy it is to walk into an oilshop and get served with all they require in a ginger-beer bottle or a cup. What about the shape of the bottle; have chemists decided upon any regulation one yet? Witness: Oh no, it is a matter of choice on the part of the chemist. He does entirely as he likes in the matter. The Coroner: That is where the trouble always lies. You never get a uniform bottle, therefore there is nothing to guide anyone as to whether the bottle is the wrong one or not. Eventually the jury returned a verdict of suicide during temporary insanity, and added a rider that the authorities should see that some restriction is placed upon the sale of this deadly poison. The Coroner said he would see that the rider was sent to the proper authorities.

The Devereux Case.

It is stated that the mental condition of Arthur Devereux, chemist and druggist, who is awaiting his trial for the murder of his wife and twin children at Harlesden, is the subject of anxiety to those engaged in his defence. For weeks past Devereux has shown by his conduct that he is quite unable to appreciate the gravity of the charge. His solicitor, Mr. Pierron, has been unable to obtain assistance from him. Devereux has been examined by mental experts on behalf of the Home Office, and Mr. Pierron has addressed a communication to the authorities asking that the prisoner should be further examined on behalf of the defence. Mr. Pierron is still without news of the whereabouts of Mrs. Harries, who disappeared after, it is alleged, giving valuable information to the defence. He is also anxious that a Mr. Henry Cox, whose evidence would materially assist the defence, should be found. That gentleman called at the lawyer's office some time ago, and gave a statement which

bore upon the case, but he left no address, and his whereabouts are unknown.

A Serious Charge.

At Brentford Police Court, on June 30, a woman named Daisy Williams was charged with performing an illegal operation upon Lydia Caroline Powell, a dressmaker. Evidence was given by Mr. Arthur Lawson, chemist and druggist, High Street, Hounslow, who said he had known the prisoner for seven or eight years. She was a customer of his, and he had at various times lent or supplied her with catheters. He should say he had sold her about two dozen catheters altogether. Mr. Samuel Lewis, pharmaceutical chemist, 122 Newington Causeway, S.E., said that the girl Powell called upon him on February 19, and he gave her a mixture which she asked for and some tablets. She called a fortnight later. He had a conversation with her, and she burst out crying. He gave her more medicine for constipation and depression on April 3. He saw her again on May 25, but gave her no more medicine. Witness handed in his prescription-book, and it was understood that the medicine would be analysed by Professor Pepper, the Home Office expert. Prisoner was remanded on bail.

Cricket.

The following gives the position of clubs in the Wholesale Chemists' and Druggists' Cricket Championship:

Club	Matches played	Won	Lost	Points
Davy Hill's ...	3	2	1	4
May & Baker's ...	1	1	0	2
Burgoyne's ...	3	1	2	2
Gramme ...	3	1	2	2

May & Baker C.C. (1st eleven) *v.* Unity C.C.—Played on July 8, the Battersea chemical team winning by 76 runs to 38.

City Mills (Howards') C.C. *v.* Kindrug C.C.—Played at Stamford Hill on July 8, City Mills winning by 114 to 67 runs.

G. B. Kent & Sons, Ltd., C.C. *v.* North London Permanent Way C.C.—Played at Victoria Park on July 8, and after a very close contest the brushmakers lost by 39 to 35 runs.

Nottingham Chemists C.C. *v.* Nottingham Banks C.C.—Played on July 10, the result being: Banks 62, chemists 45. Parkes took six wickets for the chemists for twenty-five runs.

On Thursday, June 29, the Leicester Chemists' Cricket Club opposed a team from Simpkin & James (a local grocery firm), on the Filbert Street Recreation Ground. The chemists made forty on very rough ground, and the grocers responded with fifty-two. Peberdy, for the chemists, did well both with bat and ball, making seventeen, and taking eight wickets for thirteen, and Forryan two for seven. On Thursday, July 6, the eleven played Mitchell & Co.'s team on the Spinney Hill Park ground, but lost in hollow fashion by twenty-two to fifty-three. Peberdy, for the chemists, took four wickets for eighteen, and Cleaver four for thirty-four.

Irish News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Starting Business.

Mr. Horatio Todd, pharmaceutical chemist, has opened a medical hall at 72 Holywood Road, Belfast. Mr. Todd was formerly manager for Messrs. Samuel C. Nicholl & Co., chemists, Connswater.

One Guinea a Week.

At the last meeting of the Boyle (co. Roscommon) Board of Guardians, Mr. J. Mason, dispenser, applied for his annual leave, his substitute to get 2*l.* 2*s.* per week. Mr. Tansey proposed that the substitute should only get 1*l.* 1*s.* per week for two weeks, and this motion was carried by thirty votes to five.

Belfast Chemist Deceased.

The Recorder of Belfast tried an action on July 8, in which James Drysdale sued Mr. Samuel Gibson, chemist and druggist, King Street, Belfast, to recover 50*l.* for injuries sustained by his four-year-old daughter, through the negligence of defendant's servant. On March 30 one of Mr. Gibson's vans ran over the child, seriously injuring it. The Recorder gave a decree for 13*l.*

Personal.

Sir Thomas W. Robinson, M.P.S.I., director of Messrs. Hayes, Conyngham & Robinson, Ltd., pharmacists, Dublin, has been elected treasurer of the newly constituted "Meredith" Lodge of Craft Freemasons in Ireland.

On July 10, Mr. R. Collis, pharmaceutical chemist, proprietor of the Phibsborough Pharmacy, Dublin, was the recipient at his address, 28 Botanic Road, Glasnevin, of a solid silver salver and a purse of sovereigns, presented by a number of friends on the occasion of his recent marriage.

Disorganised the Traffic.

A fine of 2*l.*, including costs, has been imposed by the Ballymena Magistrates upon Alexander Mitchell, chemist's assistant, Londonderry, for obstructing and impeding in his duties a guard of the Midland and Northern Counties Railway Co. A train leaving Ballymena had to be stopped twice owing to defendant's conduct, and the traffic on the line was in consequence disorganised.

A Chemical-manufacturer's Suicide.

On July 11 the Coroner for Belfast (Dr. Graham) held an inquest on the body of William Mills, chemical-manufacturer, 55 Kelvinside Terrace, Glasgow, who committed suicide by cutting his throat in the Station Hotel, belonging to the Midland Railway Co. at Belfast. It was stated that deceased had been depressed owing to business worry, as his trade of late had been going down. He was the grandson of an ex-Lord Provost of Glasgow.

Tuition-fees.

At Belfast County Court, on July 8, the governors of the Royal Academical Institution sued Mr. Johnston Montgomery, chemist, Royal Avenue, Belfast, for 3*l.* 8*s.*, fees due for his son's tuition. The point at issue concerned the conditions governing the withdrawal of pupils. The boy, it was alleged, had attended the Institution for two years, and attached to each account for tuition was a note intimating that a month's notice was necessary previous to withdrawal. Judge Fitzgibbon gave a decree for the amount claimed, and said that the condition contended for by plaintiff was essential to the proper conduct of a school.

Photographic Convention.

The annual meeting of the Photographic Convention is this year being held in Dublin. The opening address was delivered by Professor John Joly, this year's President, who, in the course of his address, called attention to Sir James Dewar's remarkable results, which prove that the photographic plate retains the power of forming a latent image at a temperature approaching the absolute zero—a result which, he submitted, compelled them to regard what took place as other than that of a purely chemical nature. The result of Sir James Dewar's experiment suggests that they must seek for the foundation of photographic action in some physical or ultra-atomic effect, which, as in the case of radio-activity or fluorescence, is not restricted by intervals of temperature over which active molecular *vis viva* prevails. Doubtless a great deal of the action that takes place would be claimed by chemists as of a chemical nature, and he quite agreed and fully admitted that a great deal of what occurred must be chemical, but that is quite in accord with Sir James Dewar's results. The lecturer's view is that light, when it shines upon the photographic plate, affects the silver bromide by causing it to discharge its negative electrons, these negative electrons ionising the surrounding bromide of silver. The recent addition to our knowledge of the electron as an entity taking part in many physical and chemical effects must be availed of, and should be kept in sight in seeking an explanation of the mode of origin of the latent image.

Scotch News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Personal.

Mr. Alexander Glass, chemist and druggist, 39 South Methven Street, Perth, has disposed of his business to Mr. John Brydon.

Mr. Matthew D. Murray, chemist and druggist, Dalbeattie, while adjusting a block and tackle at a second-storey

door of his premises last week, fell down to the pavement below and was somewhat seriously injured, his arm being broken in two places and his face severely cut and bruised.

Mr. William Dallas, chemist and druggist, Nairn, and provost of the burgh, last Sunday, when the "Wee Frees" occupied for the first time the church buildings formerly the United Free High Church, led a party of about 200 persons, and protested against the eviction and decision which made it possible for a small minority to drive out from their own church a congregation of 1,200 people.

Mr. G. G. Buchanan, M.B., B.Sc., who has been appointed assistant to the medical officer of health for Midlothian, is a son of Mr. David Buchanan, chemist and druggist, Kirriemuir. Dr. Buchanan has greatly distinguished himself at the Edinburgh University, where, since taking his science degree, he has been assistant to Professor Hunter Stewart, in the Public Health Department. Dr. Buchanan is only twenty-four.

Glasgow Notes.

The members of the Glasgow Natural History Society have been distinguishing themselves by discovering on Tinto, in the Leadhills district, a moss, *Bryom dovillia*, not hitherto recorded there.

The bowling season is now at its height and the bowling chemist is more on the green than behind the green—of his carboy. So he snatches brief respite from the pursuing "ambassador of commerce" and the doughty don.

A new electro-therapeutic institute (the Scottish Electro-Medical Institute, Ltd.) has been opened in the West End, which promises that all its affairs shall be conducted with scrupulous regard for the strictest ethical requirements of the British Medical Council. Mr. J. Lindsay Mackay, M.A., LL.B., is the Secretary.

On the banks of the River Clyde, near Carmyle, a party of pharmacy students was seen the other day, studying botany, apparently in view of the Edinburgh examinations. They were evidently students of the Glasgow School of Pharmacy, judging by the presence of the lecturer in this subject at the above institution.

The business of the Old Drug Warehouse, formerly in the Trongate, has been removed to 49 London Street, near The Cross. The business, to which we referred in these "Notes" in our issue of June 17 (p. 917), has been established over 200 years. It has been in the Kennedy family for many years, the present manager being Mr. W. Kennedy Lyle, grandson of the original William Kennedy. Prescription-books bearing date 1848 are still extant.

Trust Deed.

Mr. Wm. Balderston Duncan, chemist and druggist, formerly carrying on business at 28 Nicolson Street, Edinburgh, now at Theatre Buildings, High Street, Kirkcaldy, under the name of Duncan Bros. & Co., chemists and druggists, has executed a trust deed for behoof of his creditors in favour of Mr. Charles S. Romanes, C.A., Edinburgh. A meeting of creditors will be held in the offices of Messrs. Romanes & Munro, C.A., 50 Frederick Street, Edinburgh, on Monday, July 17, at twelve o'clock noon.

A Dundee Botanist.

Mr. Charles Moore, Director of the Sydney Botanic Gardens, and of the Government Domain and Plantations, who died recently at the age of eighty-six, was a native of Dundee. He was a brother of the late Dr. David Moore, of Glasnevin, and commenced his professional career in Dublin in the College Botanical Gardens about the year 1832. Mr. Moore eventually obtained an appointment in New South Wales, and the Botanical Gardens at Sydney in Moore's hands soon become noted as amongst the richest and most beautiful in the world. Moore was not only a strenuous worker of more than ordinary education and ability, but he travelled widely in Australia, especially amongst the adjacent islands, whereon he discovered and whence re-introduced many new and rare plants.

THE TROUBLE between Messrs. McKesson & Robbins and the N.A.R.D., with the Peruna Manufacturing Co. intervening, now looks like being straightened out, to the gratification of all parties concerned. Peace arrangements are now well under way.

The Week's Poisonings.

TWENTY-THREE fatalities from poisoning constitute the week's record, six of which were misadventures. The list of poisons which caused death is more varied than usual, comprising carbolic acid (5), laudanum (2), chloral hydrate, prussic acid, rat-poison, ammonium sulphocyanide, potassium cyanide, oxalic acid, strychnine, liquid ammonia (3), hydrochloric acid, iodine, salt of lemon, copper sulphate, and two poisons unnamed. The carbolic-acid cases (all suicides) occurred at Rainham, where a young girl named Faith Allen poisoned herself; at Farnley, the suicide being Joseph Henry Hall, a soldier invalided home from India; at Dempster Road, S.W., where John Please, an old soldier, took it; at Rusholme, where it was taken by a man named Royle; and in London, where the victim was George May, a commercial traveller. Ralph Rigg, 66, was poisoned by an overdose of laudanum at Sunderland, and a few drops of laudanum were given by Mrs. Pike, of Mansfield, to her infant son in mistake for cordial. The child died from laudanum-poisoning. John Gates, a Newington Butts photographer, poisoned himself with potassium cyanide. At Weston-super-Mare the wife of Dr. Horace Sweet drank inadvertently a large quantity of liquor strychninae B.P. in mistake for medicine. In his evidence at the inquest Dr. Sweet said there were two bottles on the chiffonier, one containing tincture of strophanthus and the other B.P. solution of strychnine, placed there for making up medicine for the deceased as a heart-tonic. Mrs. Sweet took the strychnine solution in error. William Curtis, a retired shipwright, poisoned himself with oxalic acid at Stamshaw. Charles Ernest Ife, 33, described as a manufacturing-chemist, died from an overdose of chloral hydrate taken in error. Hannah Stott, 55, wife of a Todmorden watchmaker, drank ammonium sulphocyanide solution which her husband had been using for photography. John Bromfield, a bone-setter, living in Hull, when suffering from nervous depression, hired a cab and poisoned himself on the journey to Victoria Pier with prussic acid, which he had purchased six weeks before from Mr. A. H. Barton, chemist, Hesse Road, saying that it was to poison a dog. Mrs. Faithful, of South Croydon, took rat-poison and died in agony. An unnamed poison was taken by Miss Nisbett, 50, a patient at Dr. Vernon's, Weston-super-Mare, and by Mrs. Crerar, mistress of the County Council school at Plumstead. At Wolverhampton, an old man named Richard Bank was an inmate of the Workhouse Infirmary, suffering from pleurisy. The nurse was given instructions to paint the side with iodine. This she did, leaving a cup containing the iodine on a locker close to the bed. The old man drank the iodine left in the cup and died. At Jarrow, Mary Pike, 50, wife of an engineer, drank spirit of salt in mistake for gin. Muriel Rutter, 24, of Manchester, poisoned herself with salt of lemon. Harriet Bruce, 28, living at Battersea Park, who was addicted to drinking to excess, poisoned herself with liquid ammonia. Two misadventures were caused by drinking the same unscheduled but dangerous poison. In one instance the victim—Richard Mander, 65, a Coventry watch-motion maker—mistook strong ammonia for his medicine, and in the other the East Lancashire Coroner said if there had been a red "poison" label on the bottle, Hannah Stacey Dillon would probably be alive now.

Mary O'Connor, 40, poisoned herself at Tralee by taking "a fistful of bluestone."

French News.

(From our Paris Correspondent.)

THE "Internal" system by which pharmacy students pass by examination as dispensers in Paris hospitals is a century-old system, and is one of the few really satisfactory features of modern French pharmacy. Judge, therefore, of the emotion produced in the "Quartier" by the rumour that M. Masureur, Director of Public Assistance, had abolished three "situations of internes" (at Issy, Brevannes, and Berck) and filled them by unexamined nominees. Pharmacy students, internes associations, and hospital pharmacists alike, decided to wait on M. Masureur. He explained it

was merely a temporary measure, and that they might rely on his respecting their interests.

ESCAPING THE GUILLOTINE.—Emile Cortial and Pierre Guillaud were condemned to death at the Seine Assizes in May last. In October last year they broke into the Pharmacie Quentin, rue Brochant, Paris, and emptied the till, after having inflicted twenty-five knife and crowbar wounds on Letailleur, the laboratory assistant. Letailleur, however, survived, and is now completely recovered. The counsel who defended the two burglars called last week on M. Loubet, and pointed out that this fact would render the reprieve of his clients an act of mercy and almost of justice. There is little doubt, therefore, that the garçon pharmacien's merciless assailants will escape the guillotine.

SALE OF A BUSINESS.—There was a case before the French Courts recently in which a pharmacist sold his business, part payment cash and part deferred, stipulating that in the event of the purchaser himself selling the business before complete payment, the amount still owing would be payable immediately. Instead of carrying out the terms of this engagement the purchaser soon afterwards sold the business again and entirely on deferred payment, for which he took bills. As the original seller could not get payment by the terms of the agreement, he took an action against the second party and has obtained judgment in his favour, by which both the sales of the business have been cancelled. This appears to make more clear a point of French law which had remained in doubt in cases such as the one in question, as to what was the position of the second purchaser who had taken over a business in a *bona-fide* way.

APOLLINARIS WATER IN FRANCE.—During two years and a half the Apollinaris Co. have been in litigation with the French authorities regarding the right of the company to sell Apollinaris water in France. The result of this controversy is that while the introduction and sale in France of Apollinaris as a natural water is now prohibited, it can nevertheless be imported on the condition that the bottles bear in indelible characters the words "Eau artificielle." The sale of mineral-waters in France is regulated by a decree dated June 18, 1823, which divides them into the two categories of natural and artificial, and the sale to the public is subject to obtaining a permission from the Minister of the Interior. A staff of inspectors is charged with controlling the purity and genuineness of the water, and seeing that it is properly maintained. The French view of the Apollinaris case is that this water was authorised to be sold in France in 1868, and the sale continued without interruption until 1902. Then the Paris Academy of Medicine passed a vote to the effect that if in 1868 the chemical composition and the conditions of bottling were the sole considerations for which the authorisation for the sale of the water in France was given, these conditions must now be considered as insufficient. The Academy pointed out that present-day regulations require that mineral-waters should be delivered for sale in the state in which they are obtained from mineral-water springs or wells, and without any other treatment than to be bottled under the best aseptic conditions. It was pointed out that decanting and aëration are more especially comprised in this prohibition, and consequently, Apollinaris water being decanted and aërated at the moment of bottling, the Academy considered they had sufficient ground for withdrawing the permit to sell in France. The Apollinaris Co. took the matter up very energetically, and their Secretary has been frequently in Paris in connection with it. He has the advantage of being a very competent French scholar, which has undoubtedly stood the company in good stead in the present instance. The company took the matter before the Council of State. They controverted the arguments of the Academy and pointed out that the operation of decanting is necessary for preserving the water, and that of the aëration consists solely in returning such carbonic acid to the water that has been given off in getting it up from the well. The company also pointed out that by Article 2 of the decree issued in 1823, authorisations cannot be revoked except in case of resistance to prescriptions of the text or of an abuse of a nature inimical to the public health; but this very logical argument did not avail. I have not heard if the company intend to press the matter further, but the subject is undoubtedly having their careful consideration.

Legal Reports.

High Court Cases.

THE "ASPIRIN" PATENT.—JUDGMENT.

MR. JUSTICE JOYCE, in the Chancery Division on Saturday, July 8, delivered his reserved judgment in the action brought by Farbenfabriken vorm. F. Bayer & Co. against Chemische Fabrik Von Heyden, by which the plaintiffs sought an injunction to restrain what they alleged to be an infringement of their patent for the manufacture of pure acetyl salicylic acid. The judgment was as follows:

This is an action for infringement of a patent under which the plaintiffs make a medical preparation popularly known as aspirin, and sold under that designation. Its scientific or chemical name is acetyl salicylic acid. It is derived from salicylic acid by a process which alters its nature, but leaves the broad characteristics of salicylic acid in the compound obtained. In fact, the patent is claimed for a body or product the name of which was known, the characteristics and properties of which had been described with more or less accuracy, and a method of getting it had been published. There was no novel idea in the patent. The patentee did not discover acetyl salicylic acid. The real and only question in the case is the validity of the patent, and, speaking generally, the question turns upon a prior publication in 1869 by a distinguished German chemist named Kraut, who there discusses, among other things, the subject of acetylosalicylic acid, which is the same as acetyl salicylic acid. The specification of the patent is intitled "The manufacture or production of acetyl salicylic acid," and it claims:

1. The process for producing acetyl salicylic acid by causing acetic anhydride to act on salicylic acid or its salts substantially as hereinbefore described;

2. For the production of acetyl salicylic acid the use of the process, which consists in allowing acetyl chloride to act on salicylic acid or its salts substantially as hereinbefore described; and

- 3 (this is the principal claim) As a new article of manufacture, the new body hereinbefore described.

4. The use of the new body hereinbefore described for therapeutic purposes.

As to which last it was, I think, admitted upon both sides that it must stand or fall on the claim No. 3. The patent, therefore, is one for a new product, and for the use of certain processes for producing it. It is not a patent for an improved or more economical method of manufacturing the product, or an improved or particular method of purifying the crude or raw product obtained by the process of causing acetic anhydride to act on salicylic acid, or of allowing acetic chloride to act on salicylic acid. The defendants have not infringed the patent by the use of any particular process, but only, if at all, by the manufacture of acetyl salicylic acid, as to their method of doing which nothing has been proved, and for the purpose of this case it may be taken to be unknown. The most material statement in Kraut's publication may, I think, be extracted or abstracted as follows:

"Acetylosalicylic acid compounds containing the salicyl and acetyl radicals have been prepared according to two different methods."

Then, after referring to the researches of Gerhardt and von Gilm, he says:

"It was to be expected that there were two different products, etc. The experiments made by Prinzhorn have now proved (I am abstracting the material part of the statement, omitting what is immaterial for the present purpose) that by the action of acetyl chloride on salicylic acid the monobasic acetylosalicylic acid is produced. If, according to von Gilm's method, 10 parts of finely powdered salicylic acid and 8 parts of acetyl chloride are heated with a reflux condenser on the water-bath, so long as hydrochloric acid escapes, the increase of weight, after driving off the excess of acetyl chloride, amounts to 95 to 98 per cent. of the quantity theoretically obtained by the action of equimolecular quantities. On cooling the product solidifies rapidly and completely to a crystalline mass, which can be purified by recrystallisation from boiling water."

Now I may say at once, it has been proved to my satisfaction that by the method described by Kraut with the aid, if necessary, of what was common knowledge at the date of the patent, acetyl salicylic acid can be, and has been, obtained, and that the product, whatever it may be, that is obtained by the action of acetyl chloride on salicylic acid can be purified in the mode stated, the result being absolutely pure acetyl salicylic acid. The specification is a somewhat remarkable document. Indeed, none of the experienced counsel engaged in this case had ever seen another specification like it. It is not a plain statement of an invention with the method of performing it, but a controversial document framed with a view

to saying that neither Kraut nor any other chemist had previously made or described the manufacture of acetyl salicylic acid. In other words, that there had been no anticipation by previous workers of the invention, whatever it was, claimed by the patentee. Further, this document, as it appears to me, is by an accident, error, or design, so framed as to obscure the subject as much as possible. The patent is for a communication from abroad. Abstracting and omitting the immaterial clauses and words, I find it stated in the specification:

"Kraut has described that he obtained by the action of acetyl chloride on salicylic acid a body which he thought to be acetyl salicylic acid. My foreign correspondents have now found that on heating salicylic acid with acetic anhydride a body is obtained the properties of which are entirely different from those of the body described by Kraut."

I may remark, in passing, that this statement is, in my opinion, erroneous, or at least misleading. But to return to the specification:

"The body obtained by my foreign correspondents is undoubtedly the real acetyl salicylic acid. Therefore the compound described by Kraut cannot be the real acetyl salicylic acid, but is another compound."

This, again, in my opinion, is at least a misleading statement. Then a little lower down:

"My foreign correspondents have further found that if acetyl chloride is caused to act on salicylic acid, not the body described by Kraut, but the acetyl salicylic acid hereinbefore described, is obtained. In order to illustrate this method of proceeding the following Example B is given, the parts being by weight 25 parts salicylic acid are mixed with 20 parts of acetyl chloride,"

(Observe these are the very proportions given by Kraut)

"and then heated for several hours at about 80 degrees Centigrade in a vessel provided with a reflux condenser. The excess of acetyl chloride is distilled off with the aid of a water-bath. The so produced white crystalline mass is recrystallised from dry chloroform."

Now, if acetyl chloride be caused to act upon salicylic acid, to use the phraseology of the specification, the crystalline mass is produced. This is so both according to Kraut and to the specification (Example B), and, indeed, the simple modes of getting this described by Kraut and by the patentee are, as it is admitted, absolutely identical. It could not seriously be denied, whatever the patentee or anyone else may say to the contrary, that the crystalline mass of Example B in the specification is identical with the crystalline mass of Kraut. In both cases acetyl salicylic acid is, and must have been, produced. The crystalline mass is substantially acetyl salicylic acid. Almost the whole of it is the compound acetyl salicylic acid completely formed. For practical purposes the whole may be taken to be, and may be used as, acetyl salicylic acid. Its general and therapeutical characteristics are the same as those of pure acetyl salicylic acid. Not only is the crystalline mass substantially acetyl salicylic acid, but, in fact, the specification, according to my reading, states that it is acetyl salicylic acid. This is most plainly so in reference to the crystalline mass formed by the analogous and equivalent reaction of acetyl anhydride and salicylic acid, and this, in my opinion, is no slip in the drafting of the specification. But, as Dr. Liebmann admitted, it is perfectly obvious to any chemist that when the action or reaction of the acetyl chloride upon the salicylic acid has taken place you will or may have a little free salicylic acid left mixed up with the crystals. This may be got out, if it be desired to get rid of it, by what is called purification or recrystallisation, or purification by recrystallisation. The separation of the two bodies in the crystalline mass, that is, of the acetyl salicylic acid and the slight remaining trace of salicylic acid, may be readily effected by one of the commonest known processes in chemistry, and the process of separation by crystallisation under such circumstances is described in the most ordinary elementary manuals of chemistry. It is plainly described in the elementary work which lay on my table during the trial. It is not a process of production at all, but is the cleansing or purifying of the acetyl salicylic acid that has been produced by the chemical action of the acetyl chloride upon salicylic acid from a slight admixture of free salicylic acid that remains uncombined; it is nothing more (I am using the words of the witnesses) than reducing the crystals or crystalline mass obtained from the reaction back again to a solution and recrystallisation, leaving in the new solution (or another liquid) a very small quantity of free salicylic acid and impurity, if you like to call it so, remaining uncombined that you may want to get rid of. And every chemist knows that in such a case, if you are going to purify or recrystallise, you should proceed with the process of crystallisation until you have completely got rid of the so-called impurity. As I have already said, the crystalline mass of Example B in the specification is identical with the crystalline mass mentioned by Kraut. Both may be termed crude acetyl salicylic acid, that is, acetyl salicylic acid mixed, not combined, with a minute percentage of free salicylic acid that has

not entered into combination with the acetyl chloride. The only difference between Example B in the specification and the process described by Kraut is that in Example B in the specification the crystalline mass, when formed, is described or stated to be recrystallised from dry chloroform (this being, of course, simply for the purpose of purification), whereas Kraut's statement is that the crystalline mass can be purified by recrystallisation from boiling water, which, indeed, is the fact. Let it be granted that the use of the dry chloroform by the patentee for the purpose I have just mentioned, that is, of purification, is preferable to the use of the boiling water, which may involve the waste of part of the product, still the patent does not appear to me to be one for a better mode of purifying the product obtained from the reaction. It claims (No. 3) for the purpose of producing acetyl salicylic acid the use of the process which consists in allowing acetyl chloride to act upon salicylic acid substantially as described. But the use for the purpose of producing acetyl salicylic acid of the process by allowing or causing acetyl chloride to act upon salicylic acid was old and known, and the purification by recrystallisation—which, having regard to what was common knowledge among chemists, did not require any invention—is no part of the process of allowing or causing acetyl chloride to act upon salicylic acid. If it could have been so considered that was not the view of the patentee. Nothing, in my opinion, was further from his intentions or thoughts. In my opinion he, it may be foolishly, claimed, and meant to claim, the process of causing or allowing acetyl chloride to act upon salicylic acid which had been long previously published by Kraut, and he did not attach any importance to the method of purification. I am unable to read the specification merely as describing or claiming the invention of a new or improved mode of purifying the crystalline mass, but the product itself as a new body, the result of any and every mode of manufacturing it, is claimed. It would be a strange and marvellous thing, to my mind much to be regretted, if, after all that had been done and published with respect to acetyl salicylic acid before the date of this patent, an ingenious person could, by merely putting forward a different—if you like a better—mode of purification from that stated, and truly stated by Kraut to be feasible, successfully claim as his invention and obtain a valid patent for the production of acetyl salicylic acid as a new body or compound. In my opinion it was not a new body or compound, and I hold the patent in question in this case to be invalid.

If the patentee had said Kraut told you how to obtain crude acetyl salicylic acid or acetyl salicylic acid mixed with a minute quantity of salicylic acid or something else—it matters not much what—remaining uncombined, and my invention is of a new process for the separation of the crude product by recrystallisation with dry chloroform, still, as at present advised, I should say that such a patent would not have been valid, and I am disposed to agree with Dr. Armstrong that the specification in this case contains no element of invention or discovery beyond what was either common knowledge among chemists or known by the publication of Kraut. But, however that may be, the invention claimed is for the production of acetyl salicylic acid as a new body, which Kraut had already told everybody how to obtain, even though there may be a better way of cleansing or purifying the crystalline mass produced by the reaction than that which Kraut suggested.

The result is that, in my opinion, the specification in this case is misconceived, the patent is invalid, and, so far as I am concerned, the action must be dismissed, with the usual consequences.

His lordship certified that the particulars of objection were reasonable and proper, and gave judgment on the higher scale.

THE BILE BEANS LITIGATION.

In the Court of Session, Edinburgh, on Tuesday, July 11, Lord Ardwall began hearing evidence in the action by the Bile Bean Manufacturing Co., Greek Street, Leeds, and Charles E. Fulford and Ernest A. Gilbert, manufacturing chemists there, against George G. Davidson, wholesale and retail chemist, 1 Polwarth Place, and at Tollcross, Edinburgh, in respect to alleged infringement of their right in "Bile Beans." Mr. F. T. Cooper, K.C., and Mr. Graham Stewart, advocate, appeared for the complainers, and Mr. T. B. Morison and Mr. Gillon advocates for the respondent.

Ernest A. Gilbert, one of the complainers, said that Mr. Fulford and he first began to put Bile Beans before the public in Australia. They had previously tried a pill called "Tiny Tonic Pills," but it did not take, and they withdrew it. Ultimately Mr. Fulford thought of the name "Bile Beans," and they entered into an agreement to push this article. The Bile Beans were made from a formula drawn up by Mr. Fulford. They were at first made for

them by an Australian firm, and when they were not able to cope with the demand an agreement was come to with Messrs. Parke, Davis & Co. in Detroit, to make the pills. In July, 1899, Mr. Fulford came to open a market in the United Kingdom, and appointed Messrs. Roche, Tompsett & Co., London, as their agents. They started a manufactory in Leeds, and had had a very large sale during these six years in this country. They had taken out writs against Mr. Arblaster, in Birmingham, who sold Bile Beans at 6d. a box, and Mr. Henry Squire, London, who sold "Bilious Beans for the Bile," and they obtained injunctions in both instances.

Mr. Cooper was examining witness as to a letter which complainers had received from J. F. Smith & Co., New York, under which complainers moved the Court to expunge Smith & Co.'s trade-mark from the register.

Mr. Morison objected on the ground that the letter was not in process, but the objection was repelled.

Witness, continuing, said they entered into an agreement with Smith & Co., and paid 600*l.* for the sole right to use the words "Bile Beans." They had set up agencies in South Africa, the Philippines, Hong Kong, India, and other places, where they had a large sale. The only English-speaking places where they had not established agencies were Canada and the United States. They had spent 300,000*l.* in pushing the business in the United Kingdom alone in five years. It was not correct to say that their bean was a common form of pill. It was a pill specially manufactured. That applied not only to the shape; it was a special formula pill. It was not the case that their pill was No. 160 of Messrs. Parke, Davis & Co.'s price-list.

Lord Ardwall said that was not evidence unless Mr. Cooper was prepared to say what Messrs. Parke, Davis & Co.'s formula is.

Mr. Cooper held that that would be entirely outside the scope of this inquiry. He was going to prove that Parke, Davis & Co.'s pill and his pill were different.

Lord Ardwall: How can you prove that unless to say what the ingredients are?

Mr. Cooper: I can prove the chemical differences between the two, but I am not going to divulge my formula.

Mr. Morison said the question would arise in the cross-examination.

Witness, in further examination, said the words "Bile Beans" had not been applied to any pill in the United Kingdom before they commenced to sell them. He never heard of any other bile bean except those against which they got the injunctions. He never heard, as the respondent said, that Parke, Davis & Co.'s bile beans are held in the highest repute throughout the United Kingdom. His company transferred the manufacture of their pills for the United Kingdom from Parke, Davis & Co. to Sharpe & Dohme, New York, in December last.

Cross-examined, witness said, in answer to Mr. Morison, that he was manager for a wholesale manufacturer in New South Wales where he met Mr. Fulford, who had been employed in connection with Dr. Williams' pills.

Lord Ardwall: Is that the pink pills?

Mr. Cooper: Yes; for pale people. (Laughter.)

Cross-examination continued—Fulford was the "Charles Forde" in the advertisements.

He is talked of in an advertisement in the "Daily Mail" as "a great scientist"?—Well, yes.

You knew that statement was quite untrue?—Yes.

Why did you advertise a statement like that which you admit you knew to be untrue?—I do not believe it was literally untrue. He had had considerable experience of proprietary medicines and a certain experience as a chemist behind the counter.

Do you say he is a qualified chemist?—I do not say so.

Did he ever have a training in a chemist's shop?—Yes, in Canada. His credentials would be such as prove that.

Lord Ardwall: In what did Mr. Fulford's scientific training consist?—I do not know. He has had considerable experience, from what I am told, in connection with the chemist business.

Lord Ardwall: Can you tell us whether he had any scientific training or study in chemistry in any university or school?—Witness could not say that, or that he had studied materia medica in any school of medicine.

Lord Ardwall: You would have heard if he had done so?—I don't know.

Mr. Morison: The pill is not, as a matter of fact, made of Australian plants.—It is composed of vegetable products.

Is it composed of Australian plants?—It may be; I cannot speak to that.

By the Court: Neither witness nor Mr. Fulford sent Australian plants to Parke, Davis & Co. to make the pills. They got the vegetable substances themselves in America.

Counsel called witness's attention to an advertisement which referred to the discoveries in Australia of Captain Cook, and his observation of the healthiness of the natives, which was due to the character of the Australian plants, and that Charles Forde had conceived the idea that these might be made useful to men and women living under conditions of civilised life. All that, counsel said, was quite untrue?

Witness: The extract as to Captain Cook, I suppose, is quite authentic. (Laughter.) He would not go so far as to say the rest was untrue. He thought vegetable remedies were quite profuse in Australia, such as eucalyptus.

Lord Ardwall: There is no eucalyptus in the pills?—None whatever.

Further questioned, witness said there was no other statement in the advertisement justified except that the pills were made from vegetable substances. It was a poetic rendering of an advertisement, just the same as any other.

Lord Ardwall: But there is no vegetable substance of Australia that you know of in your pill?—I do not know of any. Neither he nor his partner ever made any laborious or extensive inquiry into the medicinal properties of Australian herbs.

Cross-examination continued: He never saw Mr. Fulford make a pill. He adhered to his statement that Mr. Fulford was five years in a chemist's shop.

Counsel then asked witness to produce the formula from which the Bile Beans were made.

Mr. Cooper objected, and Mr. Morison having replied,

Lord Ardwall said he would not compel witness to produce the formula. It was a secret, and it would be absurd to say with regard to any medicine, and there were a great number—quack medicines—some very valuable, like chlorodyne—it would be nonsense to say that a person who had infringed the trade-mark was entitled to compel the complainer to divulge his trade secret, and perhaps destroy a trade which had cost a great deal of money to set up. If they did not divulge it he must be content to take this as a case in which the ingredients of the pill were absolutely worthless, because he had not proved them to be anything else. He did not think Mr. Morison's ground that the pill was made of well-known ingredients helped him much. He held that the witness was not bound to produce the formula. On the same ground he refused to ordain the witness to produce the agreement between the complainers and Parke, Davis & Co., and the formula given to Sharpe & Dohme.

In further cross-examination, witness said the name was not a descriptive name, but quite a fancy name, due to the invention of Mr. Fulford. The pills were known as "Bile Beans," and not as "Charles Forde's Bile Beans." It was not the case that they had dropped the name since this action was raised. It never occurred to them to drop the name Charles Forde in order that they might take advantage of the large market.

Counsel directed witness's attention to another advertisement, which purported to relate a conversation between a lady and a Dundee chemist, who wished to sell to her bile beans other than Charles Forde's, and he asked if it was not the case that this conversation of Mrs. Thomson's was a pure fiction. Witness was understood to say the letter was authentic.

Mr. Morison asked if he would produce it.

Mr. Cooper objected, and witness said he would not produce it unless his counsel said so. The advertisement was headed "A Cheeky Imposition," and the lady described the chemist as "an unscrupulous storekeeper." Witness said it might have been inspired at that time, but he could not say who inspired it, or whether it was inspired by the lady writing. His interpretation of it was that, having received a letter, it had been written up as an advertisement, warning people against imitations. He could not remember an incident of that kind. He thought the chemists of Dundee challenged the imposition at the time, and asked the lady's name and the name of the chemist. Witness did

not know that his firm refused to give them. He did not know that in 1881 Mr. James F. Smith registered in the United States the trade-mark of "Bile Beans," and in England in 1887. That firm became insolvent in 1900, and witness's firm took assignment of the goodwill and business. (By the Court): He never heard of Bile Beans in America. It was the title "Bile Beans," not "Charles Forde's Bile Beans," that they laid stress upon.

Lord Ardwall: In the Dundee case the lady is represented to say "Give me Charles Forde's, and put away that rubbish," meaning other Bile Beans. Does not that show it was important to have Charles Forde's?—No, I do not think so. The lady asked for Bile Beans, and that was the impression on her mind. When Mr. Fulford and he went into partnership the proprietary article to be put on the market was not fixed upon. They first tried the Gold Tiny Tonic Pills, and then Mr. Fulford thought of the name "Bile Beans." Mr. Fulford had been making no researches into Australian herbs. Witness believed he invented the formula himself. He did not say he invented the ingredients. He invented the formula from the knowledge he attained in his five years' experience as a chemist.

Frank Inchbold, manager to the Bile Bean Manufacturing Co., was the next witness. Among the statements he made were: The firm have distributed fourteen million pamphlets, employing 200 men to do it, and paying 150*l.* to 200*l.* a week in wages. They had paid respondent 2*l.* for the rent of his window, where he displayed their showcard. Last year they made 2,000 purchases of Bile Beans from chemists.

The following witnesses connected with the trade were then examined for the pursuers: Mr. Andrew Hunter (Duncan, Flockhart & Co.), Mr. Robert Aitken (Baillod & Son), Mr. Wm. Judson (secretary, Taylor's Drug Co., Ltd.), Mr. Charles Burt (assistant buyer for the Co-operative Wholesale Society, Ltd., Manchester), Mr. Albert Thomson (Boots' Pure Drug Co., Ltd.), Mr. James Bell (manager of the drug department, St. Cuthbert's Co-operative Store, Edinburgh), Mr. Malcolm McCallum (Scottish Wholesale Co-operative Society, Glasgow), and Mr. Alexander McRither (manager Inman's Stores, Shandwick Place, Edinburgh) gave evidence to the effect that they had never heard of Bile Beans until Charles Forde's were introduced. Evidence was also given by persons who purchased the Bile Beans from respondent. In cross-examination they said they expected to get Davidson's Bile Beans. They paid 10*d.* per box for them. They knew the price of the complainers was 1*s.* 1½*d.*

Mr. W. Heriot Whelan, of Messrs. Parke, Davis & Co.'s London staff, was the first witness on the second day of the hearing. He deposed to making arrangements with the complainers in 1900 to manufacture the Bile Beans for them, and the contract was continued until December last. His firm make many specialities to order from private formulæ, which are kept secret, the employes only making the articles by number, so that they do not know whose speciality they are making. The pills made by complainers' formula had never been included in the price-list or advertising literature issued by Parke, Davis & Co., and they had never supplied any pills under the name of Bile Beans. If they supplied any pill on their own list to chemists, and marked them as Bile Beans, they would not be the pills made under their agreement. He would regard it as a breach of confidence if they had done so.

Witness was asked if the P., D. & Co. No. 160 pill is made according to the Bile Bean formula.

Mr. Morison objected to the question on the ground that it was secondary evidence on the point as to the composition of Bile Beans.

Lord Ardwell repelled the objection.

Witness said it was not. No one could honestly sell their No. 160 pill as Bile Beans. At the time when they ceased to manufacture the Bile Beans they had in their premises in course of manufacture something like thirty-one million of Bile Beans. The complainers in their contract agreed to relieve them of any quantity of pills in course of manufacture under thirty-five millions. They could not have sold them as any pill on their list. They had no pill called Bile Beans. On June 27 he sent a bottle of Parke, Davis & Co.'s No. 160 pill and a bottle of the Bile Bean Co.'s formula pills to the complainer's agents through Mr. Inchbold.

Cross-examined by Mr. Morison, witness said he had heard of Smith's Bile Beans in America before 1900. From the name he assumed they were for biliousness. He got to know Mr. Fulford's formula in 1902. A question about the ingredients of the Bile Bean Co.'s pills and P., D. & Co.'s No. 160 formula was objected to and not allowed. Lord Ardwall asking witness if it is the case that the powerful ingredients in the formula are natural vegetable substances peculiar to Australia, replied, No.

Several other witnesses having given evidence as to the sale by respondent of his own Bile Beans to them in his shop. Mr. Inchbold gave evidence that he had sent the samples of the No. 160 pills and the Bile Beans received from Mr. Whelan to Dr. J. Lewkowitsch for analysis and comparison. He also produced a testimonial they received from a Mrs. Thomson in Kilmarnoch. He refused to produce the Dundee letter referred to in Tuesday's evidence. Dr. Lewkowitsch, F.I.C., F.C.S., said he had made tests to discover whether Parke, Davis & Co.'s No. 160 formula pill contained the elements which it was said to contain, and whether these were present in the Bile Bean Co.'s pill, which at the time of the tests was to him an unknown pill.

Mr. Morison held that the proper evidence to prove the difference between the two was by the production of the complainers' formula. The objection was, however, repelled.

Witness found that the two pills behaved very differently in solution. Of the No. 160 pill 66.33 per cent. was soluble in cold water and only 38.36 of the Bile Bean. In warm water the solubility was 3.52 and 0.74 respectively. He found that there was no compound extract of colocynth in the Bile Beans, whereas that was one of the ingredients of the No. 160 pill. He also pointed out the differences he found in the form of an alcoholic extract. The ingredients in P., D. & Co.'s formula were ext. colocynth. co., ext. jalapæ, leptandrin, ext. hyoscyami, and oil of peppermint. In answer to Lord Ardwall witness said hyoscyamus acts as a narcotic to counteract the griping effects of the medicine. The physiological effects of leptandrin give an easier flow of bile, but the British Pharmacopœia does not recognise it. The result of his examination was that the greater part of the ingredients in No. 160 were not present in the Bile Bean Co.'s pill. In physical appearance the Bile Beans were oviform.

Lord Ardwall said he would liken them to the excrement of the common rat. (Laughter.)

Witness held that the two pills were totally different.

After lunch a number of chemists were examined, whose evidence was to the effect that they never heard of any other Bile Beans than complainers' until this action was raised. In cross-examination Mr. Wm. Milne, chemist, Aberdeen, said he had never heard of liver beans.

Lord Ardwall said he had heard of liver and beans. (Laughter.)

Mr. W. Polson, chemist and druggist, Bonar Bridge, having been called,

His Lordship asked if the beans had got so far north as Sutherland.

Witness said he had had a visit from Mr. Davidson, who asked him to take a sample of his Bile Beans. He had previously sold the complainers' beans. The parcel never came, but he had no doubt if they had he would have sold them. They made a point of selling sometimes what people did not want. In answer to the Judge, witness said he was postmaster, chemist, general merchant, ironmonger, and everything else.

Lord Ardwall: The Bile Beans amongst the rest?

Witness: Yes. (Laughter.)

Mr. John Chandler, chemist, Bristol, also gave evidence.

Mr. Clyde, K.C. (also counsel for complainers), said he would hold the evidence of five witnesses from Glasgow, Aberdeen, and Dingwall as concurring in that of the witnesses who had already been examined on that point if there was no objection, and this closed the complainers' proof.

THE RESPONDENT'S CASE.

Mr. George Graham Davidson, the respondent, said he is twenty-nine years of age and has been a chemist for thirteen years. He started selling Bile Beans in June, 1904, and had had up to that time a few from the complainers. He distinguished his from the complainers'. He attached his own name on the bills and on the labels in every case, and made his boxes different in shape, size, colour, and price.

It could not be possible for anyone to mistake the one for the other. He gave his assistants instructions generally not to sell Davidson's beans when Forde's were asked for. He was certain in his own mind that none of his beans had been sold for Forde's. He never had any complaint of that kind. He did not advertise his own beans except by a handbill. The first complaint he got from the complainers was the service of the note of suspension and interdict. He saw no reason why he should not use the words "Bile Beans." They were both English words and it was a descriptive title for the medicine. So far as he knew Carter's was the first Little Liver-pills, and now a great many chemists sell little liver-pills. Any number of other articles of the same kind are in the same position. He knew of castor-oil beans, croton beans, chocolate beans, and kidney beans.

Lord Ardwall: By far the most interesting bean is the Calabar bean, which we have not heard of yet. It is a very strong poison.

Witness said he had heard of it. It was much bigger than those he had spoken of.

Lord Ardwall: They are for operations on the eyes?—Yes.

Examination continued. He had not analysed complainers' beans, but he had instructed Mr. Cowie to make a certain analysis for him.

By Lord Ardwall: He got his beans from Parke, Davis & Co. direct.

In the course of cross-examination by Mr. Clyde witness stated the pills held in the highest repute are Parke, Davis & Co.'s No. 160. He was also questioned about his circular regarding the pills, it being suggested to him that he was trying to sail as near the wind as possible in order to benefit by complainers' advertising.

The evidence was concluded on Thursday, and counsel addressed the Court.

SACCHARIN.

MR. JUSTICE SWINFEN EADY, in the Chancery Division on Saturday, July 8, had before him the action of the Saccharin Corporation v. Rickett, in which the plaintiff company sought an injunction to restrain the defendant from infringing seven of their patents for the manufacture of saccharin. The defendant did not appear. The particulars set out purchases by defendant in February, July, and August from one Harrison. His lordship granted an injunction with costs, and an inquiry as to damages.

In another action against Ray & Archer, in which the purchases were made from the same person, his lordship made a similar order.

CEREBOS SALT.

BEFORE Mr. Justice Warrington, in the Chancery Division on Friday, July 7, Mr. Cave, K.C., mentioned the case of Cerebos (1903), Ltd., v. Scott & Turner. He said it was an action to restrain the defendants from passing off their salt as being the plaintiffs' Cerebos. The action turned upon the similarity of the tins and matters of that kind. There were witnesses to be called on both sides. It was agreed that the matter should stand for trial.

AN ASSISTANT'S AGREEMENT.

IN the Chancery Division of the Dublin High Court on July 12, before Mr. Justice Barton, the Cork Chemical and Drug Co., Ltd., applied for a motion to restrain Mr. Joseph Fielding, pharmaceutical chemist, Cork, from carrying on the business of a pharmaceutical chemist, chemist and druggist, or apothecary in the city or county of Cork for a period of three years. Mr. A. F. Blood, K.C., and Mr. T. S. McCann, B.L., were counsel for the plaintiffs, and Mr. T. M. Healy, K.C., M.P., appeared for the defendant. Mr. Blood, in addressing the Court, stated that Mr. Fielding entered the employment of Messrs. Wm. Harrington & Sons, predecessors of the plaintiff company, in 1884, and steadily rose as an assistant until he occupied the position of manager. His salary in 1894, when the firm became Wm. Harrington & Sons, Ltd., was 3*l.* 15*s.* a month. On June 28, 1895, he entered into a second agreement for 12*l.* a month, and there was a clause in it stating that if he left their employment he was not to carry on a chemist's business within three years in the city or county of Cork. The present company was formed on March 13, 1896, and the defendant was a subscriber. On March 27 he entered into an agreement for the same monthly salary and 5 per cent. of the profits of the company over 3,500*l.* a year, the conditions being the same as in the former agree-

ment except that the defendant might start in business on paying 500*l.* to the company. In 1902 his salary was 204*l.* and commission. He declined a seat on the board of directors to which the condition was attached that he should extend the period of restraint from trading. Thereupon his salary was increased to 250*l.* On May 9 of the present year he gave notice to terminate the agreement and left on May 11, being warned not to open a similar business in the city or county of Cork, but he had done so at 66 Patrick Street, Cork, as a chemist and optician. The directors of the company accordingly took action under one of the articles of association which prohibits any shareholder from engaging in any similar business to that of the company within the prescribed area. Mr. Healy, for the defendant, said that his client by offering to pay the 500*l.* took the proper step to purchase his freedom, and he argued that it was ridiculous that the articles of a public company (after abandoning the agreement as a basis of action) should be used in restraint of trade in this manner. He considered the action as oppressive as it was unsustainable. He pointed out that three directors and managers of the company, Messrs. Wm. B. Harrington, Stanley Harrington, and Ignatius E. Harrington, were exempt from a certain clause in the articles of association which he described as naught, for they were made without any consideration and were in restraint of trade. Replying to Mr. Healy's argument that the clause in the articles was used in restraint of trade, Mr. McCann stated that the company is a private one, whereupon his Lordship listed the capital of the company at 60,000*l.* and on looking at the share register, exclaimed, "Why, there are hundreds of shareholders in it. I am sure it is a most popular company in Cork, and deservedly so." He reserved judgment.

Medical Acts.

AN UNORTHODOX HEALER.

AT Lambeth Police Court on July 10, Walford Bodie, the well-known mesmerist, hypnotist, and "bloodless surgeon," was charged, at the instance of the Medical Defence Union, with using the name, title, addition, and description of "Doctor," "M.D.," and "surgeon," he not being a registered medical practitioner. He was further charged with pretending to be a doctor of medicine and a surgeon. The case for the complainants, as stated by Mr. Bodkin, was that on the programme of the Camberwell Palace of Varieties defendant was described as "Dr. Walford Bodie, M.D." In other public advertisements defendant was described as "Dr. Walford Bodie," and then followed a whole line of initials, "M.D., C.M., F.R.C.I., F.R.S., M.D., and M.S.A.Lond." (which was a very well-known and high degree in surgery), or "M.S.A." The defendant treated people on the stage as a doctor, and held himself up before the public as a doctor. By acting in this way on the stage as an ordinary music-hall artiste he was adopting a course of proceeding which was degrading to the medical profession. Mr. Horace Avory, K.C., who, with Mr. H. C. Biron, appeared for the defence, pointed out that the only offence to which Mr. Bodie pleaded guilty was using the title, addition, and description of "Doctor," "M.D.," and "Surgeon." Mr. Francis (the Magistrate) said the case was one which called for a mitigated penalty, and imposed a fine of 5*l.*, and 5*s.* costs.

Sale of Food and Drugs Acts.

OLIVE OIL.

JOSEPH WILLIAM REED, Clarence Road, Hackney, was on July 12 summoned at the North London Police Court for selling as olive oil an article which the public analyst of Hackney declared to be cotton-seed oil. In the course of the hearing Miss Kemp, who purchased the oil for the inspector, said she asked for olive oil; but the defendant informed the magistrate that he told her he did not keep olive oil, but had salad oil. The witness: No, he did not say that; he took the bottle and said "I have salad oil, and it is all the same." He was putting the oil in the bottle at the time. Mr. d'Eyncourt: The money had not been paid then? Mr. Williams: No, and I am afraid that is fatal to my case. Mr. d'Eyncourt: In future cases of this kind you had better get fuller information before taking out such

summonses or I shall have to grant costs. The summons is dismissed.

A QUININE MIXTURE.

MR. CHARLES JOHN MEAD, trading in Broad Street, Soho, as Mead's Drug Stores, was summoned before Mr. Kennedy on July 7, at Marlborough Street, for selling to the prejudice of the purchaser on May 23 a compound of sulphate of quinine, dilute sulphuric acid and water, not of the nature demanded. The defendant admitted the offence. Mr. de Fonblanque, solicitor, prosecuting for the Westminster City Council, said that the operative ingredient in this medicine was sulphate of quinine, of which there should have been 30 grains, but it was found on analysis to be 32 per cent. deficient in quinine. Defendant in reply to the magistrate said he could not account for it. Dr. F. J. Allan, Medical Officer for Health to Westminster, deposed that in the event of a medical man administering such a medicine to a patient and finding the quinine did not have its effect, he would order more quinine in the next prescription, which being made up accurately would give a considerable overdose.

Mr. Kennedy : Nothing very deleterious?—No.

Mr. Kennedy : Like water and wine, I suppose. (To defendant) Made up carelessly, I think it comes to?

Mr. Mead : I suppose it must have been, sir.

Mr. Kennedy : Pay 10s., and 12s. 6d. costs.

County Court Cases.

FOR THE ERRAND-BOY'S GOOD.

AT Shoreditch County Court on July 6 (as briefly summarised in last week's CHEMIST AND DRUGGIST, p. 35), the case of Ainsworth v. Long was heard before Judge Smyly, in which Mr. Harry Ainsworth, an unqualified chemist's assistant, sued Mr. G. E. H. Long, trading as Long's Drug Stores, of 128 Clapton Road, Stamford Hill, N., for 6l. 6s., three weeks' wages, alleged to be due in consequence of being wrongfully dismissed.

Mr. Cardew appeared for the plaintiff, and Mr. Glyn-Jones for the defendant.

Mr. Cardew said the plaintiff was a manager to Mr. Long, and on May 26 he was given notice to leave, Mr. Long turning him out with one week's wages. Plaintiff bore out his solicitor's statement. In answer to the Judge, plaintiff said that the reason given by Mr. Long for wishing him to go was in consequence of his having given the errand-boy some worm-cakes. These cakes were not given as a practical joke, but because he (plaintiff) had noticed that the lad was continually going about the shop and purloining lozenges. He felt sure there was a great danger in him doing so and decided to give him the worm-cakes, if possible to check him.

Mr. Glyn-Jones : You say you gave the boy the cake for the purpose of breaking him of pilfering?

Plaintiff : No, I do not say anything of the kind. I have made no suggestion that the boy was pilfering. As is very usual, there are a large number of dangerous and, in many cases, deadly lozenges lying about within handy reach of anyone in a chemist's shop, and I thought it best to check the boy from helping himself before he took something that might have proved fatal.

His Honour : But you did not give it to him in a box so that he might think that he was getting something sweet and nice.

Plaintiff : I considered the way I gave it to be the best.

His Honour said he could not see how the plaintiff could think he was deceiving the lad, or making him think that he was taking one of the lozenges lying loose about the place, by handing him a worm-cake which created nausea. The boy would naturally be turned against the worm cake, but there seemed no reason to suppose that his natural instinct for lozenges would not be still just as pronounced.

In answer to Mr. Glyn-Jones plaintiff said that he did not give the boy a chocolate worm-cake earlier in the month. The action of the cakes would be that of an aperient. He did not see that he was doing the slightest harm in giving the boy worm-cakes, even though he was not suffering from worms, as they were universally given to children. He did not know what the B.P. dose was of calomel or of jalapin.

His Honour said that these worm-cakes apparently contained 2 grains of jalapin, so that it was a very large and

dangerous dose to give a child when two were administered.

Mr. Glyn-Jones : Now, can you tell me that you would have given these to a man your own size and weight. (Laughter.)

Plaintiff : I should not have minded.

Mr. Glyn-Jones : I would like to point out to your Honour that plaintiff rendered himself liable to a long term of imprisonment. The Act is "Offences against the Persons Act" 24 and 25 Vict., C. 100, Section 24, which states that—

Whoever shall unlawfully and maliciously administer or cause to be administered to or taken by any other person any poison or other noxious drug with intent to injure or grieve or annoy such person shall be guilty of a misdemeanour, and being convicted thereof shall be liable to three years' penal servitude or not less than two years' imprisonment.

His Honour : And the malice could be well imagined here in exactly the same way as if a person hit another over the head with a stick.

The errand-boy was called, also Mr. Long.

In giving judgment for the defendant, with costs, his Honour said that there might be some doubt that the boy was given the cakes on two occasions, but there was no doubt that he had been given two on the day in question. If at any place in the whole world, a chemist's shop was the place where caution should be displayed, and it was deplorable to think that a man should act as the plaintiff had. It was very hard to really contemplate what might have been the result of wholesale purloining by boys, but it was more than likely that the results would be most terrible and disastrous, as it was by no means hard to imagine that some shocking fatality might have occurred, as it was impossible, owing to the nature of the business, to do otherwise than keep the most dangerous and deadly drugs in the form of lozenges quite handy for the purposes of trade.

Judgment was accordingly entered for the defendant, with costs.

LIEBIG'S WINE.

BEFORE Judge Gwilym Williams, at the Pontypridd County Court on July 10, Mrs. Maria Bailey, grocer, Senghennydd, sought to recover 2l. 1s. from the Liebig Co., Ltd. Plaintiff's case was that she purchased a quantity of medicated wine from the defendants' traveller, she being told that no wine-licence was required. The Excise officer, however, purchased a bottle from her, and forwarded it to the authorities, who mulcted her in a fine of 1l. instead of prosecuting her. She had requested the defendants to send the smallest quantity to her, but two dozen bottles had been forwarded. She now claimed the repayment of the 1l. fine imposed, and incidental costs. Mr. J. H. Daniel deposed that plaintiff said she intended using the wine herself. Up to eighteen months ago grocers had been able to sell the wines containing quinine without a licence, but the Inland Revenue authorities then intervened. His Honour gave judgment for defendants, stating that plaintiff, by her evidence, had rather suggested that she had given the impression that the wine was for her own use.

Bankruptcies and Failures.

Re HENRY WHEATLEY, Tanshelf, Pontefraet, Liquorice Refiner.—At this debtor's public examination at Wakefield, on July 6, the gross liabilities were stated to be 1,629l. 17s., of which 1,203l. 14s. 5d. was fully secured, leaving 426l. 8s. 3d. to rank for dividend, and assets estimated to produce 406l. 5s. 8d. The debtor, however, stated that he thought he would be able to pay 20s. in the pound.

Re GEORGE JOHN KIRKUP, 13 Warrington Road, Newcastle-upon-Tyne, Chemist and Druggist.—The gross liabilities in this case are returned at 2,521l. 4s., of which 1,263l. 9s. is expected to rank, against assets estimated to produce 618l. The Official Receiver's observations are that bankrupt, who is forty years of age, states that he commenced business as a chemist fourteen years ago at 9 Westmorland Road, Newcastle-upon-Tyne, with a capital of 100l. For the last two years he has also been manager of the "Kirkup Mineral Water Co., Ltd.," which took over the business bankrupt had for some years previously carried on in the same premises on his own account. Debtor has kept a cash-book, debtors' and creditors' ledger, and a "takings" book. He attributes his

insolvency to "heavy losses sustained in the Kirkup Mineral Water Co., Ltd., bad trade, want of capital, interest on borrowed money, and bad debts." Of the unsecured indebtedness 62*l.* 12*s.* 10*d.* is for money borrowed and interest. The balance is chiefly for trade debts. The fully-secured creditors are for money advanced on mortgage on the bankrupt's freehold business premises in Westmorland Road. One of these creditors also holds a policy on the bankrupt's life for 200*l.* The partly-secured creditor is also for money lent and interest. This creditor holds a policy on the life of the bankrupt's brother as security. The contingent liability is to the bankrupt's sister, who guaranteed a debt of 256*l.* 5*s.* 10*d.* The principal creditor holds as security an assignment of a contingent reversory interest of the debtor under his father's will, which is estimated as of no present realisable value. The bankrupt a short time ago entered into negotiations for the sale of the business. The purchase was not completed, and the intending purchasers are now unsecured creditors for 591*l.* money advanced, goods, etc. "The circumstances of this matter," states the Official Receiver, "will apparently require investigation." The following are creditors: L. Brown, Newcastle-on-Tyne (65*l.*); George Best, Newcastle-on-Tyne (57*l.* 10*s.*); Houghton's, Ltd., London (15*l.*); John Ismay & Sons, Newcastle-on-Tyne (46*l.* 12*s.* 6*d.*); W. B. Mason, London (591*l.* 7*s.* 4*d.*); Raimes, Clark & Co., Edinburgh (16*l.* 6*s.* 8*d.*); Isidore Turner, Newcastle-on-Tyne (256*l.* 5*s.* 10*d.*); Julius Turner, Newcastle-on-Tyne (10*l.*).

Re CHARLES FIELD McCOMBIE, late of 19 St. Dunstan's Hill and 60 Lower Thames Street, E.C., Drug Merchant.—At a sitting of the London Bankruptcy Court on July 7 this debtor applied to pass his public examination upon accounts showing total liabilities 3,042*l.* 12*s.* 5*d.* (unsecured 2,386*l.* 7*s.* 7*d.*), and net assets 206*l.* 4*s.* 3*d.* The debtor was examined by Mr. Williams, Assistant Receiver, upon the trading history and circumstances attending the failure, particulars of which appeared in THE CHEMIST AND DRUGGIST of June 10, p. 896. To this debtor added that his partnership in the business with which he was connected from 1893 to 1898 was not a success, and when he retired from the firm he received nothing whatever. He borrowed 600*l.*, with which he started by himself at St. Dunstan's Hill and Lower Thames Street, and in June 1902 he had a deficiency of 986*l.* 4*s.* 10*d.* The bulk of his present liabilities had since been contracted. In 1899 and 1900 witness made a profit of 780*l.*, but during the following year there was a loss of 122*l.* During that year he lost about 275*l.* over fifty cases of menthol which were damaged on voyage. The goods were insured, but only a portion of the claim was allowed. Further losses were made about that time on other produce owing to fall in market prices. Witness had bought at a high price, and had not been able to make any profit since June 1902. A liability of 300*l.* was entered in the accounts as "contingent." It was in respect of cash advances which witness was led to regard as gifts, the lender having promised to leave the amount to him in his will. The executors, however, had proved against his estate for the amount, and the deficiency would be correspondingly increased, as witness had no documents to prove the intention of the lender. It was on March 17 last that he came to the conclusion that he could not continue the business. On that date he repaid 39*l.* odd that his son had lent from his savings. The debtor was also questioned on behalf of a creditor regarding the purchase of 82*l.* worth of goods in March last. He stated that he resold the goods at a profit of sixpence per lb., and that part of the sale money was retained by the purchaser in settlement of a contra account. The balance of 37*l.* that he received was paid into his banking account, the bankers having pressed him in respect of their loans. The examination was concluded. Appended is a list of the creditors not already mentioned:

	£	s.	d.
Brown & Co., Long Lane, S.E.	11	17	10
Brumlen & Co., 7 Mincing Lane	28	7	5
C. H. Bryant, Heneage Lane, E.C.	10	18	10
S. Ponnicoulier, Grasse, France	10	4	9
F. Fritzsche & Co., Muhlenkamp, Hamburg	80	12	0
Johnson & Son, Ltd., 23 Cross Street, E.C.	14	13	0
Lever Bros., Ltd., 109 Queen Victoria Street	21	17	0
J. F. Macfarlan & Co., 9 Moor Lane	84	11	8
Proctor, Johnson & Co., Manchester	20	5	0
W. Ransom & Son, Hitchin	18	15	9
M. Rohde & Co., Hamburg	15	15	2
H. Ruback, 59 Mark Lane	188	0	0
T. & H. Smith, Ltd., 22 City Road, E.C.	22	9	0
R. Sthamer, Hamburg	37	4	9
Tombarel Frères (J. A. Wink & Co.), Grasse	82	12	9
H. Thompson & Co., Birmingham	35	19	8

Creditors fully secured.

	£	s.	d.
London and Westminster Bank ...	94	5	11
(Estimated surplus from securities, 24 <i>l.</i> 10 <i>s.</i> 4 <i>d.</i>)			
R. Warner & Co., Upper Thames Street ...	18	3	8

Partly secured.

H. H. French, 7 Mincing Lane ...	561	18	5
C. F. Gerhardt, 34 Seething Lane ...	129	1	3
Jenkin & Phillips, 44 Mincing Lane ...	101	3	8
(Value of securities, 200 <i>l.</i> 2 <i>s.</i> 10 <i>d.</i>)			

Contingent Liability.

Executors of Richard Cantley, deceased, c/o Union Street, Aberdeen	317	15	9
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Deed of Arrangement.

Williams, Harold, trading as Williams & Co., the Wellington Drug Stores, 342 Wellington Street, Great Grimsby, Drug-dealer. Trustee, George J. Wray, 6 Albion Terrace, Great Grimsby, accountant. Dated June 26; filed June 29. Secured creditors, 30*l.*; liabilities unsecured 97*l.* 12*s.* 8*d.*; estimated net assets 40*l.* Barnett & Co., Birmingham, are scheduled as creditors for 13*l.*

Gazette.

Partnerships Dissolved.

Harger, J., and Kirkland, R., under the style of the Grand Junction Glue and Chemical Co., Market Harborough, Leicestershire, glue and chemical manufacturers.
McCall, J. H., and Lankester, F. J., Leicester, dental surgeons.
Mann, A., and Bishop, R., under the style of Mann & Bishop, Mincing Lane, E.C., produce-brokers; by the death of R. Bishop.
Robertson, F. M., and Henderson, J., Colville Road, W., medical practitioners.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDER.

Williams, Alfred Charles Hahnemann, Ilford, Essex, homœopathic chemist.

ADJUDICATIONS.

Benson, Henry Mitchell, Sheffield, medical practitioner.
Bowman, Edmund Scollay, New Cross Road, lately Old Kent Road, London, S.E., veterinary surgeon.
Flack, William Rice, Upper Phillimore Place, Kensington, W., dentist.
Whitehead, George Henry, Market Drayton, Shropshire, adapter of artificial teeth.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Shaw, Arthur Hemans Plows, Cranbrook, Kent, late Tonbridge, surgeon—discharge granted conditionally.

New Companies & Company News.

W. HERRMAN & Co., LTD.—Capital 5,000*l.*, in 1*l.* shares. Objects: To carry on in the United Kingdom, Germany, or elsewhere, the business of manufacturers of photographic and other mounts, stationery and postcards, etc. The first directors are F. Veithardt, A. J. Hall, and W. Ziegler. Registered office, 21A Berners Street, Oxford Street, W.

INNES'S, LTD.—Capital 2,000*l.*, in 1*l.* shares (700 preference). Objects: To carry on the business of botanic-beer brewers, mineral-water, fruit-wine, and cordial manufacturers, confectioners, etc. The first directors are G. H. Grundy (chairman and managing director), G. Cooper, and B. C. Wigley. Qualification, 10 shares. Registered office, 27A Garden Street, Derby.

WIMBLEDON COLOUR AND VARNISH CO., LTD.—Capital 3,000*l.*, in 1*l.* shares (1,500 preference). Objects: To acquire the business carried on at Mitcham and at Broadway, Wimbledon, Surrey, as the "Wimbledon Colour and Varnish Co." in particular to acquire the recipes for and the right to manufacture and deal in a certain substitute for turpentine known as "Turreps," to adopt an agreement with E. G. Lovelace and J. Gadd, and to carry on the business of oil and colour men, drysalts, manufacturers and importers of and dealers in

varnishes, dyewares, printing inks, wall, ceiling and other papers, etc. No initial public issue. Registered without articles of association.

PENN PERFUMERY CO., LTD.—Before Mr. Justice Warrington, in the Chancery Division, on Friday, July 7, Mr. Vanneck mentioned the case of *Mather & Crowther v. Penn Perfumery Co.*, City Road, and on behalf of plaintiffs asked for the appointment of a receiver and manager of the defendant company. It was a debenture-holder's action, plaintiffs holding two debentures of 500*l.* and 100*l.* respectively. They said the principal moneys had become due by reason of default in the payment of interest and distress having been levied on the property of the company. The company did not appear. His Lordship appointed a receiver and manager.

RUSSIAN CHEMICAL DIVIDENDS.—According to the accounts for 1904 of the Odessa Pharmacy Trading Co. (Ju. Lemme & Co.) the net profit for the year was 45,596 roubles, against 67,060 roubles in 1903. The dividend will be 10 per cent. this time, as against 20 per cent. in 1903.—The Vinnitz Chemical Manufacturing Co., of Warsaw, shows a loss of 8,100 roubles in 1904.—The Tenteleff Chemical Factory has been authorised to increase its capital from 1,450,000 roubles to 1,600,000 roubles by the issue of 600 shares of 250 roubles each, to be fully paid within six months of the date of the authorisation to issue.—The Solvay Soda Co. (Russian) closed the year 1904 with a clear profit of 1,485,455 roubles, of which 1,020,000 roubles, or 17 per cent. on the original capital, will be distributed in dividends.—The balance-sheet for 1904 of the Henri Feld Chemical Co. shows a reduction in profit from 26,006 roubles in 1903 to 19,605 roubles in 1904. Therefore the dividend will be 5 per cent. this time, as against 6 per cent. last time.

APOLLINARIS AND JOHANNIS, LTD.—The report for the year ended March 31 states that the sales and the profits show an increase over those of last year. All advertisement expenses have been written off profit and loss account. The usual depreciation for plant and machinery at the springs had also been written off. The balance brought forward was 11,381*l.*, and the net profits for the past year are 176,946*l.* Deducting debenture interest and the dividends already paid on the preference shares for the year, and the interim dividend on the ordinary shares paid December 15, 1904, at the rate of 5 per cent. per annum, there is left 65,077*l.* The directors' recommendations were given in last week's issue (p. 61). Viscount Duncannon presided at the eighth annual meeting of shareholders, held on July 13, at the Holborn Restaurant. In moving the adoption of the report, the Chairman thought his task an easy one, as there was an increase in the profits and on the sales. They were in the position of being able to pay the same dividend as last year—5 per cent.—and place a considerable sum to reserve, and carry forward a little more balance than last year. During the year the business had been well looked after by the managers, agents, and travellers, none of whom lost an opportunity of getting hold of business and carrying it through successfully. The Chairman then gave an interesting account of his recent visit to the Apenta and Apollinaris springs at Buda-Pest. Since the end of the year they had had a very satisfactory increase in sales. Mr. J. C. Prince, managing director, who seconded the motion, said that the business had doubled in ten years. They now sell 6,000,000 bottles in England annually, and all chemists and mineral-water vendors now deal direct with the company. The report and accounts were adopted, and the dividend of 5 per cent. agreed to.

Trade Notes.

THE GLAZEIT CO., 14 Cape Hill, Birmingham, are prepared to supply photographic chemists with showcards and handbills relating to "Glazeit." The article, which was referred to in this column some two months ago, is used for hardening prints before squeegeeing.

NEW LIST.—The quarterly price-current of Messrs. Goodall, Backhouse & Co., Southwark Street, S.E., is noticeable for the illustrations to the packed-goods section. These are photographic pictures, and give a good idea of what the articles are like. The rest of the list is devoted to proprietary medicines, sundries, and drysalteries.

FOR THE HIGHLANDS.—Mr. Samuel Lawrence, chemist and druggist, Oban, has issued his "Visitors' Guide" for the tourist season, a copy of which he will send post-free on application to any chemist who intends "doing the Highlands." It not only contains particulars of all tours to the various charming places in the vicinity of Oban, but also gives time-tables showing railway connections with all parts of England.

SPANISH CATALOGUE.—The revised price-list of perfumery and fancy soaps of the Crown Perfumery Co., 108-109 Fore Street, E.C., to which we recently referred, has now been issued in Spanish. Those of our subscribers to whom Spanish is the mother-tongue will like to have the catalogue in that language, and should write for a copy to the address given above.

THE CHIEF NOVELTIES in the new list of W. Martindale, 10 New Cavendish Street, W., are sedaff (a sedative bismuth preparation), and magnesia cream (a stable concentrated preparation of magnesium hydrochloride). Other additions are "Alphozone," calcium formate, potassium formate, "Jothion," "Lysoform," insect-powder, "Metakalin," "Pyrenol" tablets, sodium camphorate, "Suprenol," and "Vigorate."

THE OOWANA ADVERTISEMENT at Henley was a great success. Thousands of butterflies and samples were given away. The boat could hardly get through owing to the demands for samples. A gramophone all day sang the "Oowana" song. On the Thursday the Sisters Meredith, who sing the "Oowana" song at the Coliseum, sang it on the river, and in the evening there was a collection in aid of the Metropolitan Hospital fund.

METAKALIN is the name which the Bayer Co., Ltd., 19 St. Dunstan's Hill, E.C., have given to meta-cresol, which they market in tablets of 15 grs. each, and in carbides containing 31.5. (retail 6*d.* each). Meta-cresol is well-known to be a reliable antiseptic and disinfectant, and it is as such that it is introduced by the company. It may be appropriate to mention here that the decision in the aspirin-patent case does not affect the Bayer Co.'s trade-mark rights in the word "aspirin," which can only be used by them to describe acetyl-salicylic acid.

CANDOL is the name given to a dry extract of malt in powder form, which is offered by the Candol Depot, 2 Eastcheap, London, E.C. It is of high diastasic power, and contains, according to Messrs. Helbing and Passmore, maltose 72.70; other carbohydrates 16.54; saline constituents (phosphates) 1.40; and proteids 5.32 per cent., while it dissolves its own weight of starch in eight to nine minutes at 40° C. There has been some difficulty in obtaining supplies of dry malt extract, which is now removed by the introduction of candol, which is put up prettily to retail at 2*s.* 6*d.* and 3*s.* 6*d.* per bottle.

AMBULANCE "DON'TS."—A series of six picture-postcards has been issued by Messrs. Reynolds & Branson, Ltd., ambulance experts, Leeds, each conveying in an amusing but forceful manner various things to be avoided in ambulance work. Mr. Fred. Reynolds, the *C. & D.* caricaturist, has provided characteristic sketches for the following "Don'ts": "Don't carry a man with broken legs like this"; "Don't crowd round a street accident and shut out fresh air"; "Don't sit them up when they faint"; "Don't give a man with concussion of the brain brandy"; "Don't try to stop the bleeding cut with flour or cobwebs"; "Don't roll a semi-drowned person on a tub."

New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Byrom, T. H. *Physics and Chemistry of Mining*. Illus. 7½×4½. Pp. 172. 3*s.* 6*d.* net. (Lockwood.)

Cain, J. C., and Thorpe, J. Field. *Synthetic Dye-stuffs and Intermediate Products from which they are Derived*. 9½×6½. Pp. 422. 16*s.* net. (Griffin.)

Clarke, J. M. *Hysteria and Neurasthenia*. 7½×4½. Pp. 308. 5*s.* net. (Lane.)

Hadley, H. E. *Magnetism and Electricity for Students*. 7×4½. Pp. 586. 6*s.* (Macmillan.)

Radeliffe, L. G., and Sinnatt, F. S. *Systematic Course of Practical Organic Chemistry*. 8½×5½. Pp. 276. 4*s.* 6*d.* (Longmans.)

Rosece, Sir H. E., and Schorlemmer, C. *Treatise on Chemistry*. Vol. 1. Non-metallie Elements. New edit. Rev. by Sir H. E. Rosece, Drs. H. G. Colman and A. Harden. 217 illus. Portr. of Dalton engraved by C. H. Jeens. 9×5½. Pp. 944. 21*s.* net. (Macmillan.)

Observations and Reflections.

By XRAYSER.

Laws are like Medicines

said Bismark once; if they cure one disease they produce another. This wise observation may be commended with some confidence to the British Minister for Agriculture, who would naturally like to distinguish his period of office by some legislative performance. A little group of diagnostors, including Mr. Alexander Cross, M.P., Mr. G. H. Richards, and Mr. Dobbs, the attorney, have assured him that agriculture in this country is pining for a freer supply of poisons; and Mr. Ailwyn Fellowes, with the connivance of the Privy Council, who at least should know better, is willing to pull to pieces a singularly successful statute in order to proceed with the experiment. The existing restrictions on the sale of poisons and the limitation of the vendors were the work of the Government, not of the vendors themselves. A long series of Governments had indeed sought to plan a practicable scheme, but this was not arrived at until the co-operation of chemists had been obtained. To overthrow that legislation is risky in the extreme, and we ought to have much more definite evidence of the necessity, or even of the demand for a relaxation of the present conditions from persons actually engaged in farming than has yet been made public. British agriculture is a most important industry; everyone concedes that; and if it is hampered by some laws passed for the benefit of the community generally, it is right that the incidence of those laws should be carefully considered. But until British agriculture speaks clearly for itself, without the noisy promptings of Messrs. Cross, Richards, and Dobbs, we shall continue to argue that no case has been made out to justify the risks which we realise, if the Minister for Agriculture does not.

The New Latin

of the U.S. Pharmacopœia is necessarily one of the first features to strike the reader. There are many eminent philologists in America, and the Pharmacopœia revisers have probably had the advice of some of these, so that it will not be safe to be too keenly critical, but "fluid-extractum" can hardly be Augustan. We may expect "unitedstatesum" next. A single word to represent the class of galenicals is perhaps a desideratum, but the nation which has invented "vaseline," "tabloid," and "liquozone" need not have been floored by such a simple problem. "Emulsun" for "emulsio" may or may not be quite new just now; it is, at all events, a recent, and I think a regrettable, change. "Emulsio" was a medical Latin substantive, coined in orthodox fashion from the verb *emulgere*, to milk out, past participle *emulsus*. It was first used to describe the milk of almonds, milked out from the blanched almonds. In what respect "emulsio" is not satisfactory does not appear. "Hydroxide" for "hydrate" is scientifically justifiable, and "valerate" for "valerianate" follows French custom, though it is perhaps a sacrifice of historical accuracy to brevity. "Gambir" for the more usual English "gambier" cannot be complained of, especially as it is the form adopted in both French and German. With anti-pyrina recognised it is not easy to see why sulphonal and trional should not have been Latinised more simply than under the pedantic barbarisms of "sulphonmethanum" and "sulphonethymethanum." "Manganum" is better than "manganeseum," especially because it more clearly distinguishes the element from magnesium; but the abbreviation of ipecacuanha to "ipecac," common and convenient as it is in commerce and conversation, ought not to be encouraged in a book of authority for historic reasons.

Manna

is the one word of particular pharmaceutical interest which occurs in the new part of the Oxford Dictionary ("Mandragora" to "Matter"). No drug has a more mysterious etymological history. In the old translation of the Bible we are told that when the Children of Israel first saw the food miraculously provided for them they said "It is manna," and the sacred historian adds "for they wist not what it was." The Revised Version retains the old form in the margin, but in the text rendering gives "What is it? For they wist not what it was." This, which follows the Vulgate Version, seems more intelligible on first reading, but, after all, it may not be so correct. What the Israelites said in Hebrew was "Man-hu." This might be translated "What is it?" "It is mann," or "It is a gift." In any case, "Man-hu" has been popularly assumed to have been the original of the name of the drug known in our shops. But suppose that the word "mann," which the Arabs still apply to the exudation from the Tarfa-tree (*Tamarix mannifera*), and which they still collect and sell to pilgrims in the Sinaitic desert under that name, was known to them under the same name before the exodus (and names wear a long time in the East); and suppose, too, that the exudation was not unfamiliar under the same name in ancient Egypt (and this opinion is a conclusion of Ebers)—the exclamation of the Israelites when they first saw the "small round thing, as small as the hoar frost on the ground," was just what might have been expected. Why, they said, "It is mann; for they wist not what it was." This is the suggestion which I gather from a careful perusal of the monograph in the Dictionary. The theory, of course, disconnects the natural product from the miraculous manna, though in Arabia it is said to be still believed that the manna there collected falls from heaven with the dew. Botanists say that it exudes through little punctures made in the slender branches by an insect. How impossible it would be to associate the food of the Israelites with the manna of the tamarisk may be judged by the calculation that according to the measures named in Exodus a quantity of about 300 tons was gathered daily. The present Arabic production is estimated to amount to about 500 or 600 lbs. a year. If the desert had been full of tamarisk-trees they would not have sufficed for the consumption, and, moreover, the supply would have only lasted a few months. Of course, our manna from Sicily is a different product altogether.

The Largely-increased Strength

of the P.A.T.A. during the past year is a subject for trade congratulation. Even those who have never subscribed a penny towards its creation and maintenance are perhaps gratified that it holds together. Not many even of those high-principled persons who hold that it is wrong to make artificial prices would care to go back to the scramble for farthings which the trade in proprietary articles amounted to eight or ten years ago. Good, however, as the P.A.T.A. position is, it ought to be better. The larger part of the income is still provided by the 190 manufacturers and the twenty-two wholesale dealers who share between them the risk and the trouble; and when it is remembered that the co-operative difficulty is still looming in the future, as the report suggests, the responsibility of the non-subscribing retailers becomes obvious. There is one curious item in the financial statement, which no doubt admits of easy explanation, but which requires elucidation. Among the expenses 130*l.* 0*s.* 11*d.* is put down as "cost of purchasing cutters' stock, etc." This, it may be presumed, was the stock of some misguided individual who was defying the beneficent machine, getting protected articles with great trouble, and selling them, perhaps, below actual cost. It was wise to help him to keep the game going. But what became of that stock? There is no account of it among the receipts, though it must have consisted of saleable goods.

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Fletcher's Hydrobromates
Fletcher, Fletcher & Co., London & Sydney.

Editorial Comments.

Six Months' Business.

An account of the export and import trade of the United Kingdom for the first half of 1905 reads as follows:

	Imports	Exports
	£	£
Goods	260,529,889	175,570,493
Bullion	18,446,150	12,698,190
	£278,976,039	£188,268,683

Thus there is a difference of 90,707,356*l.*, representing goods which we have purchased more than we have sold, assuming bullion to be goods, which it is not really, for it is the medium with which nations liquidate the balances on their trading and financial transactions, which the transference of goods has not effected. Business is still barter when we come to reckon the whole of it, and the ninety millions odd in goods which we have imported this year in excess of what we have exported represents interest on British investments (capital and brains) abroad. There is very little hope of decreasing the surplus of imports over exports, for several reasons. First, two-thirds of the total is made up of food, drink, tobacco, and raw materials, which we can never produce in the British Isles; second, if we did not take payment in such commodities we could not get it in gold or silver. It may be that a time will come when British investments in foreign countries will be repaid, as Americans have been doing our investments in the United States, and thus automatically lower their exports of goods to us; but this is a remote contingency, therefore we must regard the present condition of the import and export table as normal in the widest sense. This table separates the goods into four classes: I. Food, drink, and tobacco; II. Raw materials and articles mainly manufactured; III. Articles wholly or mainly manufactured; and IV. Miscellaneous and unclassified, the first three classes being divided into kindred groups. The following are the values for the six months, the figures in brackets being millions of increase (+) or decrease (−) on 1904:

Imports	Exports
£	£
I. 109,802,334 [−1 ⁵ / ₁₀]	7,771,047 [+2 ⁵ / ₁₀]
II. 92,396,828 [+1 ⁵ / ₁₀]	17,142,961 [−5 ⁵ / ₁₀]
III. 69,787,879 [+1 ⁵ / ₁₀]	128,615,451 [+10 ⁵ / ₁₀]
IV. 1,144,475 [+5 ⁵ / ₁₀]	2,176,762 [+1 ⁵ / ₁₀]
Imported goods re-exported 40,054,293 [+3]	

These figures show as well as any the nature of our foreign

trading, and in connection with the fiscal question it may be noted that only twenty-three millions of the imports, these being in Class I., are dutiable, the Customs revenue from other articles being negligible in amount. If further import duties are ever imposed they will have to be levied chiefly on the articles in Class III., for there is little in the other classes sufficient in amount to tempt the revenue-raisers to tax them. It will be seen that the value of imports of manufactured goods is about 140,000,000*l.* a year, and a 10 per cent. duty upon these would not be a tenth of the revenue at present required for the government of the country. We may roughly divide those goods into groups of a kind, contrasting with them the values of exports of our own manufactures in the same groups :

	Imported <i>£</i>	Exported <i>£</i>
Metal products	18,000,000	32,600,000
Wood manufactures	1,900,000	500,000
Yarns and textiles	22,000,000	68,000,000
Chemicals and medicines	5,000,000	7,500,000
Leather goods	5,000,000	2,500,000
Earthenware and glass	2,000,000	1,500,000
Paper	2,500,000	1,000,000
Miscellaneous	15,000,000	14,500,000

Cotton is the one item in the returns which gives a clear idea of how money is made in this country. Of raw cotton we have imported 25 millions pounds' worth this year, and the value of cotton textiles and yarns exported in the same period was 44½ millions. Besides, a great deal of the manufactured articles were used by ourselves. We imported 17 million pounds' worth of wool, and exported 14½ millions of wool manufactures; here there is a fair amount of home-grown wool to be accounted for, and we are amongst the principal wearers of woollen clothes in the world, so that the industry is really greater than the export figures show. We mention these facts because the hardware and soft goods trades are the branches of industry which keep all the rest going, and it is well to keep an eye on them. Now, turning to those branches of trade in which our readers are directly interested, we note that the only article imported more largely this year is glycerin—6,227 cwt. in June and 43,174 cwt. in the six months, the June imports being about double those of June 1904, and this accounts for the increase. Cinchona and quinine were imported to less extent and value; the imports of quinine have gone down from 667,400 oz. in January-June 1904 to 377,456 oz. this year. The value of unenumerated medicines for the six months is 640,876*l.*, or 30 per cent. more than last year. The export trade in chemicals is decidedly better. Bleaching materials were at a low ebb in 1904 compared with 1903, but we have now got part of the way back to that year, 426,946 cwt. having been exported, at a value of 87,935*l.* Dyestuffs and chemical manures show improvements in quantity and values, while soda compounds have been exported to a less extent but for more money than in 1904. In this section of our exports there is nothing so striking as the steady increase in exports of medicines. Quinine has been better (365,538 oz., of which 121,706 oz. was shipped last month), and the exports of medicines generally have increased from 660,235*l.* in January-June 1904 to 725,138*l.* this year. The exports of medicines last month were valued at 115,096*l.* It is interesting to note that this exceeds the soap exports, which were valued at 101,507*l.* in June and 682,061*l.* in the six months, both 20 per cent. better than last year. In other directions there is evidence of good business in export trade, and it is quite apparent that the British manufacturer is not devoid of that push which is so essential to progress in business.

A Lesson from America.

CHEMICAL INDUSTRY was at one time so important a factor in British trade that a celebrated politician once selected a portion of it as indicative of all the rest of the business; for as the demand for alkali goes up or down so are other trades busy or slack. That was true when it was said, and still is approximately true, for our textile industries are the backbone of British business, but the Earl of Beaconsfield never dreamt that British Chemical Industry would ever include American interests. This we know has happened through the Society which was started three-and-twenty years ago by two Lancashire alkali-manufacturers, and which immediately was made to serve for the whole country, but which actually from the outset included American chemists amongst its members. Now it appears that of the Sections of the Society the New York one is numerically the strongest, and this week there have come from the United States more than a hundred members to support the President, himself a distinguished and successful American chemical-manufacturer, in his conduct of the annual meeting. As a figure-head Dr. Nichols is a man whom any community might be proud of. He has the characteristics of the sincere and successful man, that bodily presence which commands respect, and is singularly free from the assertive attitude. Therefore his references to chemical industrial enterprises in the United States are exceptionally weighty, and with them before us while looking back at British Chemical Industry we are forced to reckon with the great possibilities which lie before the industry in the United States, whose natural resources of material and power are just beginning to be tapped, the while ours are tending towards exhaustion; and the workers in the new country have a genius for organisation that is modern. It is unnecessary to elaborate what Dr. Nichols said on the last point; his address was directed to explain how a modern chemical industrial enterprise should be administered, and his exposition revealed that remarkable system of co-ordination of departments which is so prominent in the United States, and still lacking in most of our industrial concerns. Sir Henry Roscoe, with his intimate knowledge of British chemical industry, declared that Dr. Nichols' exposition was "a wonderful and most valuable lesson from America," a peculiarly appropriate remark in view of the fact that it is old-established businesses which get most benefit from the co-ordination and economy which come from perfected organisation. The fraternising of the chemists of the two nations during this and succeeding weeks is sure to be beneficial, but, we fancy, the influence of Dr. Nichols' address will remain longer, and will assist many who have searched for guidance fruitlessly.

The Treaty with China.

ALMOST three years have now elapsed since the signing of the Mackay Treaty with China, but up to the present none of its important provisions have become effective. In fact China has actively opposed some of its stipulations, such as the reform of the currency and taxation, the promulgation of mining laws, and the free development of navigation. These are the chief complaints which are brought forward, and such is the feeling of resentment among leading British firms in Shanghai that a telegram signed by over seventy of them has been addressed to the Foreign Office insisting on the treaty being made immediately operative. At the same time a communication was sent to Lord Lansdowne setting forth in detail the nature of the complaints. From the evidence it would appear that the Chinese Government and officials throughout the Empire are now more opposed to reform than before, and there is no evidence whatever

of an honest endeavour to carry out either the spirit or letter of the treaty. China promised to establish a uniform currency throughout the Empire, and the fact that she has not even "adopted a policy looking towards the carrying out of this clause of the treaty" will, in the opinion of some of the best judges, eventually bring about a serious financial crisis, which in its turn will probably work serious havoc with British trade. Suggestions have been made and a report presented by Professor Jenks, of the American Commission, who has investigated the currency, but the leading Viceroy in China has advised the Emperor to reject the suggestions, his idea being that they are a deep-laid plot on the part of foreigners to obtain some advantages over them. Much of the coinage in China, it need hardly be said, is of a debased nature, and the value of the tael differs in every province—in fact in every city in every province. We may recall an article on this subject in our issue of January 3, 1903 (p. 23), which gave an intimate idea of the intricacies of Chinese coinage. We are not surprised, therefore, that China is afraid to tackle the currency question, as the many vested interests involved in the abolition of the local mints would probably lead to trouble. Taxation at the present day in China is more onerous than before, consequently the restrictions upon foreign trade are more pronounced, and as for the opening-up of navigation, the Chinese officials show great reluctance to allow the free use of the inland waters to shippers carrying the foreign flag. As matters stand at present our bargain is simply on paper, and as British commercial interests and prestige must suffer by this masterly inactivity on the part of the Manchu Government, it is to be hoped that the protest will be effective in bringing about a more favourable consideration of the treaty obligations, though we are afraid, judging from past experience, that nothing much is accomplished in China except by compulsion.

Synopsis of the U.S. Pharmacopœia.

Dr. W. Harrison Martindale has done a smart piece of work by preparing and publishing this week "A Synopsis of the Principal Changes in the United States Pharmacopœia Effected by the Eighth Decennial Revision, 1900—Official from September 1, 1905, Compared with that of 1890, and the British Pharmacopœia, 1898." An advance sheet of the "synopsis" shows that the work will be useful to those who have not received, or are not likely to get, the Pharmacopœia. An extract will illustrate the style of the notes:

	B.P. COMPARATIVE NOTES.
<i>Absinthium</i> .—Omitted.	
<i>Acetanilidum</i> . Dose.—0.25 Gm. (4 grains).	Dose, 1 to 3 gns.
<i>Acetonum</i> .—99 per cent. pure Sp. Gr. 0.790 at 25°C., B. pt. 56.5°C. Neutral to test paper, and leaves no residue on evaporation. 20 Ce. mixed with 0.1 Ce. of $\frac{n}{10}$ permanganate colour remains for 15 minutes.	Not official.
<i>Alcohol</i> . Now 92.3 per cent. absolute alcohol by weight instead of 91 per cent. Test for fusel oil and for methyl alcohol.	Corresponds to Spiritus Rectificatus. — Off. 85.65 per cent. by weight.

The pith of the matter is thus given, and the notes comparing the B.P. monographs with the U.S.P. should be useful. The names of articles omitted from the Pharmacopœia are printed throughout in italics, and those of new articles in the heavy black type, others being in a lighter variety of Roman type. The whole Pharmacopœia is treated, and the production reflects credit on the author's industry and knowledge of pharmacopœial matters. The book is published at 2s. by Mr. H. K. Lewis, 136 Gower Street, London, W.C.

The Revenue Bill.

Several blocking-motions to this measure have been notified, apparently for no precise reason, and without a proper understanding of the objects of the measure. We believe these may be removed, several members of Parliament who know all about it having expressed their intention to use their influence with the blockers.

Mydriatic Solanaceæ.

Professor Ernst Schmidt, of Marburg, and Dr. Adolph Kircher, have commenced a re-study of solanaceous plants which contain mydriatic alkaloids, the object being to determine exactly what these alkaloids are. The research is important, and we refer to it briefly, full details being given in the "Archiv der Pharmazie." The results are here summarised:

Datura Metel.—The carefully dried leaves contain 0.55 per cent., and the seeds 0.5 per cent. of scopolamine.

Datura arborea.—All parts of this plant contain scopolamine principally, with some hyoscyamine.

Datura quercifolia.—The leaves contain 0.4 per cent. and the seeds 0.28 per cent. of alkaloid calculated at scopolamine, and hyoscyamine being present.

Datura Stramonium.—The alkaloid in this plant is hyoscyamine. Particulars of the research have yet to come.

Atropa Belladonna.—All parts of the plant contain hyoscyamine, and no scopolamine.

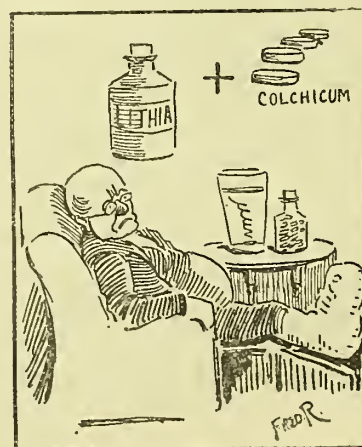
Dr. Kircher's report on his work is now in course of publication, and the above facts are drawn from Professor Schmidt's preliminary statement.

Is this Fair?

CHEMISTS.—IMPROVER Wanted immediately; one with a year to complete his Apprenticeship preferred.

A Scotch subscriber sends us a paper containing the above advertisement, which he says is a rather common style in Aberdeen, where apprenticeship indentures are practically unknown. Perhaps it has not struck the advertisers that such announcements may tempt many a lad to leave his apprenticeship just at the time when he is most useful, so that an injustice will be done to a *confrère*.

The Seven Ages of Man. (Pharmaceutically Considered).



5.

The fifth stage sees him in his chair recline
One fiery foot in gouty torment tried,
Pondering the joys of good full-bodied wine,
And dainties tasty; turning with a groan
To sip the luscious lithia and colchicum.

Society of Chemical Industry.

**Twenty-third Annual General Meeting, beginning in London on Monday, July 10, 1905,
under the Presidency of Dr. Wm. H. Nichols, of New York.**

FAVOURED with excellent weather (an intervening thunderstorm now and then only helping to clear the air), the first international meeting of this Society on British soil commenced at the University College, Gower Street, London, on Monday, at 11 A.M. But that was not the first of the events which will remain in the memories of many as the beginning of an historic event in the annals of chemistry. The President, Dr. William H. Nichols, of New York, came to London ten days before the meeting, along with Mrs. Nichols and members of his family, and the leaders amongst London chemists vied with each other in showing him hospitality. He signalled the arrival of more than a hundred of his fellow-members from the other side of the Atlantic by bringing together at dinner in the Café Royal, Regent Street, on Saturday evening, the Chairmen and other office-bearers of the sections of the Society, and some leaders in chemical industry and the chemical profession. It was a remarkable gathering, the feast (arranged, we understand, by Mr. A. Gordon Salamon) being of that refined nature which characterises American banquets. The host had on his right Sir Henry Roscoe, F.R.S., Dr. E. Divers, President-elect, Mr. J. Fletcher Moulton, K.C., M.P., F.R.S., Dr. Hugo Schweitzer, of New York, Dr. W. H. Perkin, F.R.S., Mr. David Howard, President I.C., Professor H. E. Armstrong, F.R.S., Mr. George Beilby, Mr. J. W. Wilson, M.P., Sir John Brunner, Bart., M.P., and Dr. Virgil Coblentz, of the New York College of Pharmacy. On Dr. Nichols's left were Dr. H. W. Wiley, chief of the Bureau of Chemistry at Washington, Sir William Ramsay, K.C.B., F.R.S., Dr. Ludwig Mond, F.R.S., Professor C. F. Chandler, of New York, Dr. T. E. Thorpe, C.B., F.R.S., Colonel Penton, R.A., Professor Tilden, F.R.S., Dr. Emerson Reynolds, F.R.S., Mr. E. K. Muspratt, Mr. E. A. Brotherton, M.P., and Mr. Samuel Hall. The Chairmen of the spur tables were Mr. A. Gordon Salamon, Mr. Julian L. Baker, Dr. Julius Lewkowitsch, Mr. Charles Wightman, and Mr. R. J. Friswell, all prominently associated with the London Section. Among those connected directly or indirectly with pharmacy who were present were Sir Boverton Redwood, Mr. T. Tyrer, Mr. H. S. Wellcome, Mr. N. H. Martin, Mr. D. L. Howard, Mr. Charles T. Tyrer, Dr. F. B. Power, Professor Crossley, and Mr. G. S. Albright. Mr. Charles Umney was unable to be present. It was 8.30 before the guests sat down to dinner in the room which the Western Chemists' Association and the Pharmacy Club have frequently dined in.

"What does the 'N' stand for?" many queried.

"Napoleon, I suppose," said some.

"Nichols" said those who knew better.

"Ah, these Americans know how to do things," said another. "Fancy having the room specially decorated for the occasion!"

"Not Nichols, N-i-c-o-l-s, the founder of the Café Royal!"

"Happy coincidence, though."

The conversation wandered round to where Sir Henry Roscoe sat, and he did not forget it when, later on, he was called upon to speak. There was very little of that, however, as two excellent musical programmes were submitted, the first being by the "Red Band" (Mr. Thomas Batty leading) during dinner, and after it Mr. Albert Fox had a small party of vocalists, with Mr. Spencer Dyke as violinist.

After dinner Dr. Nichols first gave the toast of "The King," then he thought so well of the Queen that he gave her one all to herself. He said:

Standing on Westminster Bridge the other evening, looking with admiration on the grand architecture around me, I saw your King pass as a private gentleman in a plain brougham, without pomp or ceremony, without guard or fear; and sitting beside him was the most beautiful woman whom I have ever seen—his wife, your Queen. I give you, gentlemen, the toast of "Queen Alexandra." Long may she live to grace her high station.

Then the Prince and Princess of Wales and the other members of the Royal Family were similarly honoured, and Mr. David Howard, in a few sentences of real English heartiness, submitted the toast of "The President of the United States." When Sir Henry Roscoe rose to propose, as his audience surmised, the health of the host, he had a most cordial reception, in part due to the facts that he was the

first President of the Society and that Americans esteem him highly. His references to Dr. Nichols showed keen appreciation of the President's abilities as a technologist and host, and Sir Henry thanked him for bringing together so interesting a company—one containing twelve past-Presidents of the Society and a potential one. Those who had passed the chair were himself, Dr. W. H. Perkin, Mr. David Howard, Sir William Ramsay, Dr. Ludwig Mond, Professor Chandler, Dr. T. E. Thorpe, Dr. Emerson Reynolds, Mr. E. K. Muspratt, Mr. Thomas Tyrer, Professor H. E. Armstrong, and Dr. Clowes. Sir Henry recalled that the real founders of the Society were Mr. E. K. Muspratt and Mr. Eustace Carey, who went to him about a quarter of a century ago, asking if he would assist them in founding such a Society for Lancashire, and he suggested that it should be a Society for the whole country. So it was founded in such a way, and with such a basis, that it has been expanded to include the whole English-speaking race,



WM. H. NICHOLS, M.S., LL.D., D.Sc.

Prefers to call himself simply "chemical manufacturer," and started as such with the help of one labourer. Since then the brains and muscles of hundreds of men have gathered round his efforts, and in recent years the power of Niagara has been added.

and he concluded while America can contribute to the Presidential chair such representatives as Dr. Nichols there is no fear of the bond of union snapping. After "He's a jolly good fellow" was sung with English heartiness, Dr. Nichols briefly replied. He is a master in saying much in little, with subtle humour. The twelve past-Presidents and one possible President sounded ominous, he said, but the possible one was not near enough for bad luck. Then a curious thing happened. Dr. Nichols called upon Dr. H. W. Wiley to reply for him. Dr. Wiley soon had his audience laughing heartily. He only arrived that morning to find that there was no place for him at that table, but Sir Thomas Lipton intervened and took away Justice R. N. Hall, who was to have sat in the chair which he (Dr. Wiley) had been very comfortable in all the evening. With other pleasant diversions Dr. Wiley filled up five minutes, and Mr. Barclay Gammon's humour at the piano earlier in the evening brought him back again to find the company deep in conversation, which he was sorry to interrupt, but he did, and when he had done with a sketch which showed astonishing acquaintance with the drug trade (it will be more apropos at Brighton), Dr. Nichols asked the company to join him in drinking to the health of Mr. Gordon Salamon, to whom, he said, they were indebted for the pleasure of that evening, as well as much still to come. Mr. Salamon spoke a few sentences of thanks, and at the call of the host "Auld Lang Syne" was sung.

PROCEEDINGS OF THE MEETING.

ONE of the lecture-theatres of the University College and several of the rooms adjoining had been set aside for the use of the Society on Monday morning. The Council met at ten o'clock, and by 10.45 the members began to drop into the lecture-theatre. When the President, accompanied by Sir William Ramsay, Sir Boverton Redwood, Dr. Russell W. Moore (chemist to the U.S. Customs, New York), and Dr. Divers, walked from the Council-room to the platform, there were about 100 members and their lady friends present, but ere long the theatre was completely filled with an audience of about 400. We noticed Professor Chandler come in with his newly-wedded wife, accompanied by Mr. Alfred Mond. They took a seat in the fourth row, but later Professor Chandler was called to the platform, where he sat beside Sir William Ramsay. A cheer was given to Sir Henry Roscoe when he came in and sat to the left of the President, Dr. W. H. Perkin, sen., being beside him. Dr. Ludwig Mond, Mr. A. Gordon Salamon, and Mr. Julian L. Baker, with Dr. Hodgkinson and Dr. Dreyfus (the scrutincers), Mr. Samuel Hall (Treasurer), and Mr. C. G. Cresswell (Secretary) completed the platform contingent. There were also present (councillors in the first horseshoe) Professor Armstrong, Mr. E. Carey, Mr. Forbes Carpenter, Dr. Virgil Coblentz, Dr. P. Dvorkovitch, Dr. M. O. Forster, Mr. R. J. Friswell, Mr. O. Guttman, Dr. Leffmann, Professor F. Mabery, Mr. E. K. Muspratt, Mr. Max Muspratt, Dr. W. H. Parker, Professor W. J. Pope, Dr. F. B. Power, Mr. F. Ransom, Sir Boverton Redwood, Mr. W. F. Reid, Mr. George Ward, Dr. Emerson Reynolds, Dr. S. Rideal, Dr. H. Schweitzer, Mr. J. Spiller, Dr. W. S. Squire, Mr. F. Napier Sutton, Professor W. A. Tilden, Mr. T. Tyrer, Dr. H. W. Wiley, and Mr. R. C. Woodcock.

The President (Dr. W. H. Nichols) rapped for order at ten minutes past eleven, and called on

Mr. A. Gordon Salamon to welcome the visitors. Mr. Salamon expressed the keen delight that was felt in having the American visitors there, and he gave them, in the name of the British Sections, a hearty welcome. The Society, he said, is delighted to have another American President after the experience of Dr. Chandler's presidency. He (the speaker) was sure that the friendship of the two nations will be cemented for many years to come in all that represents the interests of the Anglo-Saxon race in applied chemistry.

The President thanked the British Sections from the bottom of his heart. If he spoke for a week, he said, he could not adequately express his appreciation of the magnificent reception which has been accorded to the American visitors. (Hear, hear.) He then called on the Secretary to read the minutes of the annual meeting held in New York last year, and the minutes having been agreed to,

Drs. Dreyfus and Hodgkinson were appointed as scrutineers. The Secretary next read the

REPORT OF COUNCIL.

The number of members on the register is 4,326, as compared with 4,134 at the last annual meeting. The "Journal" for 1904 was not quite so bulky as the previous year's issue. The Council expressed its hearty appreciation of the exceedingly cordial welcome given to the Society by the New York Section on the occasion of the last annual general meeting. In the autumn of 1904 the President requested Dr. Edw. Divers, F.R.S., to act as his deputy during his year of office, and Dr. Divers was thanked for his unremitting services in that capacity. The Council congratulated its late President (Sir Wm. Ramsay, K.C.B., F.R.S.) on having been awarded one of the Nobel prizes, and also thanked him for the manner in which he represented the Society during the visit to America. A new contract for three years for printing the "Journal" has been entered into with Messrs. Vacher & Sons, of Westminster. This involves some increased cost. The postage of the "Journal" reaches the considerable sum of 850*l.* a year; and inquiry is being made as to the possibility of joint action with other learned societies with a view to obtain some reduction on the rates of postage of scientific journals. Since the last annual meeting a New England Section has been constituted, covering the States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The inaugural meeting of the new Section, at which the President and many members of the New York Section were present to give it encouragement and support, was held on May 12. The Birmingham Section has also been revived. Reference was made to the industrial alcohol inquiry, and to Mr. Thomas Tyrer thanks were given for his services on the Committee.

Dr. Virgil Coblentz proposed, and Dr. Leffmann seconded, the adoption of the report, the motion being carried unanimously.

THE TREASURER'S REPORT.

The Treasurer then read his report on the finances of the Society. He made running comments on the revenue and expenditure accounts. The receipts during 1904 included 4,814*l.* 4*s.* 5*d.* from subscriptions, 391*l.* 13*s.* from entrance fees, 80*l.* from life composition fees, while sales of "Journal" and subscriptions towards "Collective Index" brought 518*l.* 13*s.* 11*d.*, and interest 443*l.* 1*s.* 2*d.* The expenses were: for the "Journal" 2,597*l.* 8*s.* 3*d.*, sectional and annual meeting expenses 883*l.* 17*s.* 5*d.*, Secretary and assistant's salary 450*l.*, printing, sundries, stationery, etc., 197*l.* 6*s.* 8*d.*, office expenses and fees 230*l.* 12*s.* 5*d.*, petty cash 104*l.* 8*s.* 10*d.*, donation to the National Physical Laboratory 100*l.*, decennial index expenses 95*l.* 1*s.*, leaving a balance of 1,117*l.* 4*s.* 11*d.* Of this 999*l.* 9*s.* has been invested in Great Eastern Railway stock, making the present investments of the Society total over 15,000*l.*

Dr. H. Schweitzer proposed a vote of thanks to the Treasurer, which Mr. R. C. Woodcock seconded, and it was carried unanimously.

At a quarter to twelve the President started to deliver his presidential address. Dr. Nichols selected as his subject

A CHEMICAL INDUSTRIAL ORGANISATION.

It occupied fifty minutes in delivery, and there was not, from beginning to end, the slightest indication of weariness in the audience; indeed, the interest appeared to increase as Dr. Nichols proceeded, and none seemed to follow him more closely than Sir Henry Roscoe and Dr. Mond, two chemists representing the theory and application of the science. The manner of delivery was good, and as to the matter we speak elsewhere. The first paragraphs were of a personal nature, Dr. Nichols in them expressing in simple language his appreciation of the highest honour within the reach of the chemical manufacturer—the presidency which he held. Here is a good example of his remarks in this connection:

Looking over the list of my distinguished predecessors, as I have often done, I beheld a long line of men who have had large influence for good in the world, some of them having even attained to the niche in the Temple. Some have passed away, full of honours, to render an account of useful lives; some remain for further work and the enjoyment of the

fruits of that already accomplished. As I find myself about to be added to that list, I am humbled by the knowledge of the smallness of my services to the Society, and of my unworthiness to appear in that company. In one respect, however, I am the equal of any, and that is in the earnestness of my wish for the welfare of the Society, and that humanity shall profit in increasing measure by the work of its members. What the world already owes cannot be estimated. Its debt in the future will be limitless. The science of Chemistry and its applications enter into every walk of life—(applause)—and the men who form this and kindred societies, and those who shall be born into them, must assume the major portion of the responsibility for the debt our science owes the world in turn.

Dr. Nichols then spoke of the Society as an international yet British one, paying a tribute to our cousinship, and saying that the election on two occasions of an American as President of the Society is "evidence of that mutual respect and esteem which have been steadily growing among Anglo-Saxons everywhere, and which are to be such potent forces working for the industrial welfare of the world, as well as for the peace of the nations," this remark being received with applause. Then he spoke of last year's visit to America, and briefly of this return visit, dwelling for a little on Dr. Edward Divers' name, especially what he owed the doctor for acting as his deputy during the year. With such thoughts as these he steadily approached the subject of his address, mentioning that Sir William Ramsay had suggested to him that he should take up the subject of the training of the chemist at the point where he left off last year, and this he did, not following too closely, however, Sir William's lines, for his object was rather to show how a chemical industrial organisation is managed. Thus the intelligent chemical graduate who proposes to enter chemical industry may realise the environment he approaches. Obviously Dr. Nichols spoke from personal experience, since he started a raw graduate with one labourer to help him, but he prefaced his scheme of organisation with the remark that it may not be universally applicable, for he had

AMERICAN POSSIBILITIES

in his mind, and here there was a modestly uttered but weighty pronouncement which impressed the audience. It was this:

Few who have not lived in it, and studied the question carefully, can have an adequate idea of the wonderful progress made by the United States during the last thirty years in the arts, manufactures, and all else which makes for the greatness of a nation. And fewer yet are those, even of our own prophets, who have been bold enough to forecast the wonders of the future. The gradual though rapid unfolding of limitless resources which are only now beginning to be understood remind one of an infant Newton attracted by the vision of his fingers and toes, and yet who knows nothing of the vast possibilities of his little life for time and eternity. Almost every natural resource needed by man in his most complex civilisation is found there in prodigal abundance. Coal sufficient for ages. Water powers of wonderful proportions. Forests almost extensive enough to withstand the shortsighted and brutal assaults made on them by ignorance and greed. Ores of nearly all metals in surpassing abundance. Fields of grain and cotton, of tobacco and fruits sufficient to supply the home market and leave vast quantities for export. Such is the empire which in these last years has been opened up in some degree for its fortunate inhabitants and for the benefit of that portion of the world less blessed with physical wealth. Whatever may be thought concerning the mission of the United States in the realms of thought and ethics, there can be no disagreement as to its destiny to supply food and raw materials to many millions without its borders. The growth of exports of manufactured goods, as shown by statistical reports, indicates that we long ago entered the field as competitors for a share of the world's needs of these products as well.

In discussing the industrial future of the world we must take into account these new and enormous resources. The Americans did not create them. They might even feel humiliated that they have not accomplished more with them. The problems of the future for us are very great. If we were obliged to rely solely on natural increase of population the unfolding would not be sufficiently rapid; but we are not. We can surely count upon a vast influx of immigrants, nearly a million a year, some of whom will be undesirable, it is true, but most of whom will make useful citizens after they have learned the difference between

liberty and licence—(laughter and applause)—and have become assimilated and Americanised. Indeed, it is our pride that many come to us qualified from the start to bear their part of the burdens, and to contribute their full share to the elevation of the country.

Dr. Nichols then remarked that chemical industry is only in its youth in America, and to attain its full stature it must be organised. In his scheme of organisation a Board of Directors is necessarily at the top, and success depends largely on the character of its leading men. But it was the detail work that he preferred to discuss, and this he divided into the following

GENERAL DEPARTMENTS:

Purchasing, Sales, Transportation, Finance, Construction, Operating, Research or Investigation, and Statistical; all so closely interwoven and harmonious that best results shall be obtained without delay. To attain this object he has found it necessary to arrange two committees, composed as follows:

First, a Manufacturing Committee, consisting of the managers of the Operating, Construction, Purchasing, and Investigation Departments, the chairman being the Chairman of the Executive Committee. This brings all departments having to do with the turning out of products, present and prospective, in regular and systematic touch with each other and with the Executive Committee.

Second, a Sales Committee, composed of the managers of the Sales, Operating, and Purchasing Departments, together with a member of the Executive Committee. This also results in a close touch of the department distributing products with the others, and with the active governing body.

Each of these having been described in detail, Dr. Nichols gave his views on

THE SELECTION OF CHEMISTS,

which is highly important, as from their number may come those who will go into the research laboratory of the Company, or possibly fill its superintendents' positions, and in later years its offices. He said:

It is not sufficient that they shall show that they have received a good education and have completed a technical course, but they must evidence such personal characteristics as lead to the belief that they are capable of advancement to positions requiring the exercise of thought and judgment, and the assumption of responsibility. It is desirable that they should have some knowledge of mechanical engineering and the general principles of construction, but . . . this combination is rare. . . . It is to be hoped that the courses in technical chemistry may turn out men better prepared for the work than those who have entered the field hitherto. In the past I have not found it a matter of so much importance from which technical school a man has obtained his degree, as that he should be practical, reliable, hard working and possessed of natural ability, and the capacity for development and advancement. . . . It is only the ambitious, self-reliant, able, practical-minded men who can expect to graduate from the laboratory into the wider field of works management, where the personal equation is so largely a determining factor. The apprentice should be kept long enough on one subject to make rapid and accurate analyses and at the same time be encouraged to make himself familiar with all the different methods of analysis bearing upon his particular work, and to be sure that he thoroughly understands the basic principles and theory upon which the work rests. For example, if a man be analysing sulphuric acid by the particular method employed by the company, he should not only know that method thoroughly, but by reading become familiar with all other methods of analysing sulphuric acid. Knowledge acquired in this way is apt to be more permanent than that acquired by promiscuous reading. After a sufficient experience along these lines, the apprentice arrives at a position where he may be able to improve existing methods or even invent new ones, owing largely to the thorough acquaintance with the needs of the department that would be apt to follow work and study carried on in this way. Of course all new methods he must test by rigid experiment before recommending.

In a works laboratory a variable degree of accuracy is required, depending upon the object for which the analysis is made. In some cases a tenth of 1 per cent. variation would not be serious. In other cases a ten-thousandth of 1 per cent., or even much less, is highly important, and as the object is to turn out analyses of the required accuracy in the least amount of time, it is of great advantage for the chemist to have such general knowledge of the use to be made of each analysis as will enable him to avoid waste of

time in unnecessary accuracy. . . . The apprentice confines his duties for a number of months, and frequently for years, to a works laboratory, and incidental to his analytical work he gains a certain knowledge of the general routine which obtains at that plant. After the laboratory service, if the chemist has displayed ability to advance, he is promoted to a position which will bring him into direct contact with the manufacturing processes, and his duties will gradually change from those of analyst to those of a manufacturing assistant, until he becomes proficient enough for the position of assistant superintendent, in which he should receive a regular training in all the various duties pertaining to the position of superintendent.

The President now approached the more technical part of his subject, in which the larger operations of a chemical factory are controlled. He described the arrangement and duties of the Construction Department, which should deal with installation and extension of plant and structures, how these are planned, and so on. Similarly, the Investigation Department was described, whose work may be divided into three classes :

- (a) The probability of reducing manufacturing costs.
- (b) A decision to produce well-established products not previously manufactured by the company.
- (c) New applications of science to industry.

Incidentally the work of the research laboratory was referred to, and in speaking on (c) Dr. Nichols said an investigation of a new manufacture includes a thorough examination of both the commercial and technical sides of the proposition, so that the assistance of the manager of the Sales Department and other commercial branches is invoked for consideration of the following :

- (1) Its relation to the interests of the company, (2) the market, (3) manufacturing costs, (4) investment necessary, (5) source of raw materials, and (6) transportation.

These he discussed in detail, and similarly what the technical experts have to consider, viz. :

- (1) The process, (2) other processes, (3) raw materials, and (4) quality of product required.

Amongst the things the Investigation Department has to do in this connection are to make a *résumé* of the literature and obtain a report from foreign representatives on the latest European developments. "We may soon have to add the Japanese," said the President, a round of applause signalling this declaration. Finally he spoke of an absolute essential in a company operating a number of plants, viz. :

A STATISTICAL DEPARTMENT.

Following is a synopsis of the plan which he recommended for this, and which, he explained, is worked entirely by ladies :

Each factory furnishes monthly the following reports:

- Raw materials received.
- Raw materials used.
- Shipments of finished products.
- Stocks of raw materials.
- Stocks of finished products.

Productions and statement of statistical charges (including manufacturing labour, labour on repairs, material taken from the storehouse for manufacturing, except fuel and raw materials), packages, dry barrels, etc., included in the selling price and not returnable, manufacturing cartage (*i.e.*, teams used around the works), steam, and water. The first shows the number of pounds of raw material received, together with cost of placing in the pile, and by adding the amount of bills, freight, etc., we get the actual cost per 100 lbs. of each. These figures are used in obtaining the material cost of each 100 lbs. of production, which, with sundries, labour, fuel, and repairs, makes up the total manufacturing cost, and in connection with that shows what each department has accomplished during the month. As each of the factory sheets is checked, and every pound of raw material and finished product accounted for, nothing escapes which should be considered in costs. In addition to the manufacturing cost are shown the cost per 100 lbs. of special factory charges (including such accounts as docks, dredging, fire equipment, laboratory, lighting, roads, maintenance of yards, watchmen, gatemen, etc.) and cost per 100 lbs. of goods produced due to salaries of superintendents and chemists, based on proportion of labour of each department and the total manufacturing labour. The factory shipment sheets are checked with the Accounting Department, as well as repairs and net selling prices ob-

tained, lighterage, cartage, allowances, estimated freights, etc., being deducted. By using the manufacturing costs and the net selling prices, we arrive each month at the gross manufacturing profits, and, deducting taxes, insurance, office, and other general expenses, the net results are obtained.

In his closing sentences Dr. Nichols warned his hearers that they would fail to attain the best and most permanent results if the personal equation be forgotten. "The day has not come, if it ever will, when from purely altruistic motives a man will give his most efficient services. He must realise that while his best work must be done, it will not go unnoticed and unrewarded. He must be sure that he will receive just and proportionately liberal treatment. His proper ambitions must not be smothered, they must be directed. . . . The places of the leaders will some day be vacant. Who then shall fill them? Those whose lives have been spent in preparation for the work, and who will enter into it without shock or derangement of existing conditions, but as naturally as the stream flows into the river. Thus will the natural ambition of the young man reach its fulfilment in due time, and thus will our beloved industry progress to points of attainment which some of us may dream of, but will never see."

APPRECIATION EXPRESSED.

When the applause had subsided Dr. E. Divers, in proposing a vote of thanks to the President for his address, spoke of the interest and importance of the subject dealt with. The matter was particularly valuable as having been treated by a successful manufacturer of great experience. No language, he said, could be too strong to express the thanks of the Society.

Sir Henry Roscoe seconded the motion and said he was almost overcome by the extreme value of the discourse. It is a lesson to English chemists from America—a wonderful lesson, a most valuable lesson for chemical manufacturers to take to heart. If they cannot carry out all the recommendations, the manufacturers can improve their methods in some of the directions indicated. Sir Henry then, referring to the fact that he was the first President of the Society, said he did not originate the idea of founding the Society. That was due to Mr. E. K. Muspratt and Mr. Eustace Carey, who consulted him with a view to founding a Society for South Lancashire. His counsel was to make the Society a national one. It has now become international, as is shown by the fact that two of its Presidents have been from the United States. "May the two countries be united in a still more common bond and be brothers in heart and in deed" were the closing words of Sir Henry's speech.

Dr. Divers put the vote to the meeting and it was carried with acclamation.

ELECTION OF OFFICERS.

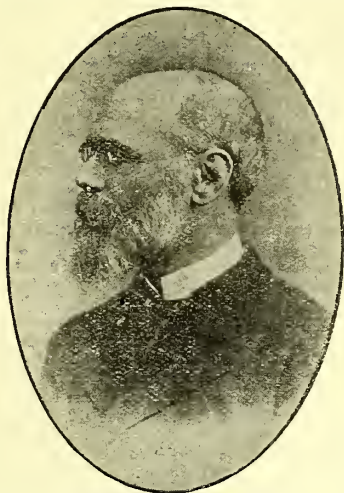
The scrutineers then presented their report, Messrs. Dunn, McArthur, Ling, and Maskell being elected members of the Council in place of Drs. Grossmann and Lewkovitch and Messrs. Martin and Scudder. The retiring Vice-Presidents are Professor Bedson, Mr. Grant Hooper, Dr. Power, and Mr. Tyrer.

The President called on Mr. Tyrer to say a few words on behalf of the retiring members of Council.

Mr. Tyrer referred to his long official connection with the Society and then to the remarkable fact that during the time the Society has been in existence the rules have only twice had to be amended, and then only in minor details. One of these occasions was now regretted, when the subscription was lowered from 30s. to 25s. At that time the Council was afraid the Society was not going to succeed, and the reduction was made so as to induce the young men to join. That object had been attained, so that the step was after all not unwise. In the other case the rules were altered so as to facilitate business. Sir Henry Roscoe had referred to the international character of the Society, but it was his recommendation to draw up the rules on a broad basis that has made this possible. The Society has been through times of differences and strain, but the rules then drawn up have proved equal to every strain. He (the speaker) had had some experience in municipal and Government bodies, but had never heard greater freedom in the expression of opinions with so little friction resulting than on the Council of the Society.

The President then notified to Dr. Edward Divers that he had been elected as the new President of the Society, and alluded to Dr. Divers' services as his (the speaker's) deputy.

At this juncture a little surprise was sprung on the meeting, the President producing a gold badge of office that has been subscribed for by Americans. He explained that



DR. EDWARD DIVERS, F.R.S.

at the formation of the Society there were twenty to thirty American members, typical of the fact that the Society was of an international character. Now there are more than 1,600 members resident in the Western Hemisphere, and they hoped to remain members as long as the Lord would permit them. These members wished to leave some little memento with the English members, but in a country full of precedents it was difficult to know what to do. If any precedent was being destroyed he (the speaker) would take the blame, but they had decided to present an insignia of office which the President could wear at public gatherings. He hoped the little simple medal would be accepted by the Council in the spirit in which it was given, with an instruction to the Presidents to wear it. (Loud cheers.) The insignia, he further explained, has a portrait of Sir Humphry Davy in the centre, round this is the name of the Society and a wreath, while below are two hemispheres joined together, typifying the world-wide membership of the Society. He hoped that all the sections would continue to be part and parcel of the great Society and remain as long as time shall endure. (Loud cheers.)

Dr. Divers thanked the Society for the honour conferred on him in electing him President, and said he would try and keep the Society up to its high standard. He intended emulating the example of his distinguished predecessors in office. Next he thanked Dr. Nichols for the beautiful badge of office, which was a special mark of the goodwill between members on both sides of the Atlantic. Then advancing to the President, Dr. Divers said: "I should be glad if you will show us the working of the clasp by putting the ribbon of the badge round your neck."

This graceful suggestion was as gracefully declined, the President saying that, whilst he appreciated the great honour in being asked to be the first wearer of the badge, he reminded Dr. Divers that the badge had to be first accepted by the Council before becoming the official insignia of the President's office.

The auditors were re-appointed, and it was arranged, on the motion of Dr. Baily, supported by Sir Henry Roscoe, that next year the annual meeting of the Society shall take place in Manchester.

VOTES OF THANKS.

Dr. Chandler moved a vote of thanks to the Council and Senate of the University College for the use of the meeting-place. He said it was an interesting fact that the University College was the first public institution in England to offer instruction in practical chemistry, and he reminded the meeting of the splendid work of the College's professors of

chemistry—Sir Thomas Graham, Professor Williamson, and Sir Wm. Ramsay.

Sir Boverton Redwood seconded the motion, and it was carried unanimously.

Sir William Ramsay, in reply, said the Council and Senate were always willing to give the use of rooms for the promotion of learning; they had done so for the last seventy-five years. (Hear, hear.) He noted, however, that since last week the University College had ceased to exist, an Act of Parliament having made it an integral part of the University of London; but the name of the University College will be retained. Referring to the early teaching of practical chemistry at the College, Sir William said that it was in 1828 that Professor Turner opened his laboratory to a few students, and the work was continued by Sir Thomas Graham, Professor Williamson and his associate Dr. Charles Graham, and now by himself.

Mr. Gordon Salamon then made a few announcements as to the programme to be followed for the rest of the day and the meeting ended, the members and their friends going to the Midland Hotel for luncheon.

THE ENTERTAINMENTS AND EXCURSIONS.

A simple English luncheon was provided for the members of the Society and their ladies at the Midland Grand Hotel, St. Pancras, immediately after the annual meeting. The London Section issued the invitations, and some five hundred people were accommodated in two dining-rooms of the hotel. There were no speeches. Luncheon was over at about 2.30, and those who were going to Richmond waited about the hall and steps of the hotel for the carriages which were to convey them thither.

The drive was by Hyde Park, so as to give the visitors the opportunity of seeing the Albert Memorial, and through Richmond Park, the beauties of which are always impressive. The object of the visit to Richmond was to attend a garden-party given at the Terrace House by Sir Max L. Waechter and Lady Waechter. Sir Max is connected with the petro-



A. GORDON SALAMON, A.R.S.M.,

Fellow of the Institute of Chemistry and of the Chemical Society, Chairman of the London Section of the Society of Chemical Industry, who has engineered the series of entertainments provided for the members of the Society.

leum industry, and is interested in several steamship companies. He was High Sheriff of Surrey in 1902, in which year he was knighted. Many of the visitors, after the reception at the Terrace House, went over to Doughty House, the residence of Sir Frederick L. Cook, Bart., M.P., where the picture-galleries were thrown open for their inspection.

In the evening there was a reception at the Royal Botanic Gardens, by Dr. and Mrs. Nichols and Mr. and Mrs. Gordon Salamon, on behalf of the London Section. The reception was

timed for nine o'clock, but it was a little later before the guests began to arrive. The drizzle which followed the Richmond party more or less on the way back to town had by this time gone, and the evening was fair, though dull. The gathering was a merry one, thanks largely to the drolleries of The Follies, who delighted the American visitors immensely, the stout and stalwart member of the troop who sang "Happy England" excelling himself on this occasion in producing fresh verses in response to encores. "A Midsummer Night's Dream" was acted under the greenwood trees by Patrick Kirwan's players, and the Coldstream Guards played throughout the evening. Supper was served in two marquees, and the gardens were illuminated. The gathering was altogether brilliant, and the American ladies shone amidst their English sisters in richness of costume and wealth of jewels.

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The whole of Tuesday, from 9.30 A.M. to 6.30 P.M., was devoted to a trip down the river as far as Woolwich, where a party of 300 or thereabouts visited Woolwich Arsenal, a privilege secured for them by Mr. Choate before he surrendered the duties of American Ambassador. The party, on arrival at Woolwich, was divided into sections of about thirty each, conducted by a competent guide. The one which our representative went with began the inspection (which lasted about two hours) at the north-east shop of the Royal gun factory, where the guns are roughly turned up. At the View Branch the various types of breeches were shown in operation. By 11.30 the party learned how guns are bored, for they spent a quarter of an hour in the South Boring Mill, then went into the shell foundry of the Royal Laboratory, where the casting stage in the manufacture of shells was illustrated. After this another fifteen minutes were spent in the main factory of the R.C.D., then the manufactory of the Royal laboratory was traversed in five minutes. The party again embarked on the *Mermaid* for the return trip to Greenwich, where at The Ship a fish luncheon was served at two o'clock. After luncheon most of the party walked up the hill to the Observatory, which was thoroughly inspected, the whole staff devoting themselves to guiding the visitors in small groups, and explaining how the chronometers of the British Navy are timed. This proved to be one of the most interesting and instructive visits on the programme. On the return journey the *Mermaid* stopped at London Bridge, where many of the party got off, the rest being landed at Westminster.

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At the Mansion House in the evening Sir John Pound, Bart., Lord Mayor, and Lady Pound gave a reception. The Lord Mayor and Lady Mayoress were supported by the Sheriffs, and received their guests from nine to ten o'clock. Mr. Cresswell, Secretary of the Society, standing beside the Lord Mayor to introduce special guests. The band of the Coldstream Guards discoursed good music, and the drawing-rooms and Egyptian Hall of the house afforded ample scope for promenade and rest. At a beautifully decorated buffet, filling the south side of the hall from east to west, refreshments were served. The silver plate and gold plate of this most ancient civic institution of England were illustrated by sample, and the pearl sword presented to the City of London by Queen Elizabeth was placed for inspection, and greatly interested the American visitors. We noticed in the company many distinguished chemists, and amongst those connected with our business were Sir Joseph W. Swan, Mr. R. A. Robinson (President of the Pharmaceutical Society), Mr. G. B. Francis, Mr. and Mrs. W. H. Francis, Mr. E. A. Webb, Mr. and Mrs. R. W. Greeff, Mr. and Mrs. George Haller, Mr. and Mrs. Francis Ransom, Mr. N. H. Martin and Miss Martin, Mr. and Mrs. T. Tyrer, Mr. Pickering, and Mr. Brewis.

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The visit to Windsor on Wednesday did not include a trip on the river. When the party arrived at the ancient borough about eleven o'clock, by special train from Paddington, they were received at the Guildhall by the Mayor, who provided light refreshments. Then they went to Windsor Castle, where a corps of guides took them through the State apartments, explaining everything. As a special privilege the party were admitted to the private Northern Terrace, in order that they might see the most ancient parts of the structure, and here again the guides gave information which is not usually vouchsafed to visitors. After paying a visit to St. George's Chapel the company lunched at the White Hart Hotel, and while the men smoked their cigars the ladies had a carriage drive through the Great Park for an hour, the train back to town leaving at 5.30.

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Thursday was devoted to a trip to Haslemere, Lord Tennyson's house being inspected, and in the evening the Royal Society gave a select reception.

THE DINNERS.

Wednesday evening was given up to old-fashioned and modern English dining. The latter was a ladies' dinner, and the former was partaken of in

THE GOLDSMITHS' HALL,

Foster Lane, E.C., and was intended for the American members, to meet whom many distinguished scientists, lawyers, and public servants were invited. Again we had a demonstration of the triumph of mind over matter, for, excellent as was the banquet served by Messrs. Ring & Brymer, which surprised and charmed the visitors, the artistic magnificence of the hall, the music by the Westminster Singers, and the speeches by men of world-wide fame, were the elements which went to make up an abiding recollection. Before the company sat down one of the leaders of the Society, whose prophetic eye is as clear as his diplomacy is productive, came to our representative, saying, "This must be reported verbatim, every word and act, in American style. You'll arrange it?" The shorthand writer is transcribing his notes as these pages are flying through the printing-machines, but for our readers are the impressions of a diner, whose duty was more to convey the atmosphere of the event than the *ipsissima verba* of the speakers.

First, then, the purpose of the dinner was to give the American visitors a notion of the hospitality which was native to London before the American continent was discovered, and this in an environment which carries with it the traditions and emblems of the forefathers of the American race. All the quaint formalities of City dinners, saving that most ornate of all, the loving-cup, were exhibited. Dr. Nichols sat in the Prime Warden's chair, behind him gold-plate enough to save a life's striving for wealth by the applications of chemical science. Beside him at the table were gilt-edged examples of Britain's and America's best. On the right Sir William Huggins, President of the Royal Society, Dr. Divers, Archdeacon Sinclair (who the other evening, at the American Society's Independence Day dinner, began a list of America's benefits to England with Peabody, and ended with Henry S. Wellcome); next to him was Lord Allerton (father of our most popular cricketer, the captain of the England Eleven), Mr. Justice Buckley, Mr. Justice Hall (U.S.A.), Professor Chandler, Professor Tilden, Sir Walter Prideaux, and Sir Archibald Geikie. On the left were the Lord Chief Justice, the Dean of Canterbury, Sir Henry Primrose (Chairman, Board of Inland Revenue), Professor Meldola, Professor Judd, Mr. Rufus Isaacs, K.C., M.P., Dr. H. W. Wiley, Professor Larmor, and Sir Joseph Swan. In front of the table Sir Boverton Redwood, D.Sc., sat *vis-à-vis* with the President, supported by Mr. R. C. Woodcock and Mr. T. Tyrer. Professor Coblentz sat between Mr. Eustace Carey and Dr. Perkin, and Dr. Hugo Schweitzer between Dr. Thorpe and Mr. Muspratt. There were three spur tables, Mr. Julian Baker, Mr. Salamon, and Mr. Hall presiding at them. Mr. N. H. Martin, Dr. A. R. L. Doherty, and Dr. Power sat together at one of them, Dr. W. A. Alpers at another; Mr. Wellcome was at Mr. Salamon's right hand, and Mr. George Ward, of Leeds, was at Mr. Hall's table.

The *Laudi Spirituali*, A.D. 1545, furnished the grace after meat for four boy-voices and four men's. Then Dr. Nichols commenced the speeches with a charming reference to the Princess of Wales's latest in proposing the health of the King and Queen. To the Lord Chief Justice fell the toast of "The President of the United States." This he gave with all the dignity and fluency of utterance of which he is a master, and his intimate references to the character of Mr. Roosevelt, whom and King Edward he classed as the two men who have done most of recent years for the peace of the world, had a sympathetic response from the audience. This was accentuated when Dr. Nichols read a telegram which he proposed to send to Mr. Roosevelt, adding to it what the Lord Chief Justice said about John Hay. Mr. Salamon at this point read several cabled messages of felicitation from America.

Professor Chandler proposed "The Houses of Parliament." His speech was interesting, as it gave an outside view of our great institution, and, curiously, the strong point in it was the reference to Blue books on such subjects as water pollution and drainage, in which Professor Chandler said he had got more information than from all the works in French and German. And why? Because our Select Committees (of which Professor Chandler has had personal experience) are free from bias, and have the power to call as witnesses the greatest authorities. Lord Allerton, who confessed himself proud to be a member of the Society and paid a high tribute to its work, replied for the House of Lords, and Mr. Rufus Isaacs for the House of Commons. Dr. Divers then submitted "The Society of Chemical Industry." Dr. Nichols, in his reply, gave the longest speech he has made during the week. His heart was full with the unusual experience of the evening,

and he expressed himself proud of all that the Society has accomplished, and of the opportunity which it gave him to participate in an event which would be for ever memorable. Then, on behalf of the New York Section, whose history he sketched, he presented gold medals to Dr. Hugo Schweitzer, Secretary of the Section, and Mr. Woodcock, the Treasurer, in token of the high appreciation of their valuable services. If we were to say that the Old Hall subdued the exuberance of every guest's enthusiasm at this graceful tribute we would be wrong; it was simply tempered by the deep respect which the American members have for their two colleagues.

When Sir Boverton Redwood rose to propose "The Learned Societies" he had a knightly reception, and, in response to the toast, Sir William Huggins, whose remarkable likeness to Longfellow was noted, spoke with the voice of a sage and the language of a poet, so gracefully, fluently, and wisely that it was worth coming from the other side of the Atlantic to hear him. "Our Guests" fell to Mr. Gordon Salamon, and Dr. Hugo Schweitzer, in his reply, won the esteem of those who had not already had the opportunity of giving it. Dr. H. W. Wiley followed him humorously, and Sir Joseph Swan put to the gathering the unprinted toast, "The Health of the President," to which the company added Mrs. Nichols and musical honours. Dr. Nichols thanked all, and wished them "Good Night."

Meanwhile, as we have said, a perfectly modern example of dining was displayed in the West

AT THE CAFE ROYAL,

which was the scene of a ladies' dinner. Those who were there refer to it as the pleasantest function of its kind ever held. Sir William Ramsay was chairman, and on his right sat Mrs. W. H. Nichols, and on the left Mrs. A. Gordon Salamon. The guests totalled over a hundred, the greater proportion being women, mostly hailing from the other side of the Atlantic. Such a dinner is probably unique in the annals of the Society, and when it is recorded that the toasts were proposed by or for ladies it will easily be recognised that the mere men present were astonished and crestfallen. The cooking of the Café Royal, always good, was never better than on Wednesday night, and this, combined with an abundance of flowers, a soothing selection of music, and plenty of iced water, pushed aside any qualms of home sickness which our American visitors may have felt. Each lady guest found at her place a beautiful bouquet of pink carnations and a fan. At the conclusion of the dinner, much to the surprise of the gentlemen, permission was given to smoke. This was after the loyal toasts, which included, after the toast of "The King," that of "The President of the United States." The orchestra was equal to the occasion, and gave the "Star-spangled Banner" with considerable enthusiasm. "Our Lady Guests" was proposed by Mrs. A. Gordon Salamon in a speech bespangled with compliments and betraying no trace of nervousness. Mrs. W. H. Nichols replied, and, referring to the fact that the American visitors were being killed with kindness, called upon her sister Americans to stand up and drink the health of the Chairman, which they did. To Mrs. Lewkowitch was entrusted the toast of "Applied Chemistry." She gently twitted Sir William Ramsay on the difficulty that is experienced by women in keeping up to date on the elements. "It is as bad as the constant struggle to keep up with the fashions," she said. "One buys a hat in the morning, and feels some pride in being quite in the fashion, but by the afternoon that head-gear may be quite out of date, making one quite ashamed to be seen wearing it in public." (Laughter.) Mrs. Lewkowitch also gave an amusing account of her search for a subject in the "Journal" "with the sky-blue cover which twice a month graces our breakfast-table." Sir William Ramsay, in replying to this toast, said women were undoubtedly the first to practise applied chemistry. They were probably the first agriculturists, and certainly the first to find out the uses of simples and to master the art of cooking. The last toast, "The Chairman," was by Dr. M. O. Forster, who took the task for Miss Lennard, who was too unwell to be at the dinner. He confessed to being a bachelor, which perhaps brought him sympathy from a certain section of the company. Sir William Ramsay replied, and an initiation into the mysteries of "Auld Lang Syne" concluded the evening. A word ought to be said for the splendid programme of music which occupied the intervals between the speeches, Miss Lilian Gardner's singing and Miss Maud Horne's violin solos being specially worth mention. It was midnight before the ladies reached the "Russell," and the remark "I shall sleep well to-night" was pretty general, and indicative of a well-spent day.

TURPENTINE exports from Bordeaux during 1904 amounted to 48,214 cwt., a decline of 29,257 cwt. British purchases last year were only 8,158 cwt., against 12,107 cwt. in 1903.

British Pharmaceutical Conference. The Brighton Meeting.

WE remind those of our readers who are thinking of taking a holiday this month that Brighton chemists offer them hospitality for the week beginning July 24. The invitation is extended to every chemist, whether a member of the Conference or not, a fact which the Colonial and Indian and American pharmacists now in this country should bear in mind. They will get a hearty welcome by their Brighton *confreires*, and they or others should write as soon as possible to either of the Secretaries, Mr. W. W. Savage, 109 St. James' Street, Brighton, and Mr. C. G. Yates, Upper Hamilton Place, Brighton, who will secure apartments for them. It is necessary to write soon because the Mayor gives a reception on Monday evening, July 24, and cards of invitation are immediately sent to those who write to the Secretaries. The tickets for luncheons, excursions, and other entertainments can be obtained from them by post, or on arrival at Brighton. A room in the Hôtel Métropole is to be reserved for the Secretaries, and they or their deputies will be found there during the Conference week.

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The list of communications to the Conference has been considerably extended since last week, and now stands as follows:

1. "The Physiological Standardisation of Drugs, including a suggested Physiological Standard Test for insertion in the next British Pharmacopœia." By W. E. Dixon, M.D. (Lond.), M.A. (Cantab.).
2. "The Composition of Dentifrices as affected by recent Investigations in Dental Science." By G. Stanley Read, L.D.S.E.
3. "Mercuric Zinc Cyanide." By D. B. Dott, F.R.S.E., F.I.C.
4. "Further Notes on Radio-activity." By W. Harrison Martindale, Ph.D.
5. "Some Features of the New U.S. Pharmacopœia." By T. Maben, F.C.S.
6. "Essential Oils of the New United States Pharmacopœia." By J. C. Umney, F.C.S., and C. T. Bennett, F.C.S.
7. "Compound Tincture of Gentian." By F. H. Alcock, F.I.C., F.C.S.
8. "The Ash of Myrrh Gum." By F. H. Alcock, F.I.C., F.C.S.
9. "The Flora of Sussex" (a ten minutes' talk). By G. Claridge Druce, M.A. (Oxon.).
10. "The Examination of some Commercial Concentrated Infusions." By R. A. Cripps, F.I.C.
11. "A Note on the Analysis of Tinct. Camph. Co." By F. C. J. Bird.
12. "The Pharmacy of Capsicum." By A. W. Gerrard, F.C.S.
13. "The Chemistry and Pharmacy of the Leaves of Viola odorata." By H. Wippell Gadd, F.C.S.
14. "Laboratory Notes: (a) Nux Vomica Seeds, (b) The Assay of Cinchona Bark, (c) The Manufacture of Cinchona Bark." By Sydney C. Gadd.
15. "Arsenious Iodide." By R. C. Cowley and J. P. Catford.
16. "Castor Oil," Part I. By Horace Finnemore, A.I.C., and Harold Deane, B.Sc. (Lond.), A.I.C.
17. "Amateur Laboratory Construction," By E. W. Polard, B.Sc. (Lond.).
18. "Report upon the results obtained from the Analysis of Pharmaceutical Preparations by the Union Analysts of the Poor Law Unions of Ireland in Year ended March 31, 1905." By J. E. Brunker, M.A. (Dubl.).
19. "A Note upon Acid Hydrochloride of Quinine." By W. Garsed.
20. "Tragacanth and Gum Acacia: Comparative Viscosity of the Simple and Mixed Mucilages." By Edmund White, B.Sc. (Lond.), F.I.C.

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Mr. Savage has received a letter from the Associated Railways in which they say in regard to reduction of fares:

"Your application was again considered by the Associated Railways Co. in conference this week, and same was given careful consideration; but looking at the fact that on previous occasions you have failed to reach the guaranteed number, they regret that they cannot see their way to grant the concession, and I am sorry therefore that

I am not in a position to make any reduction in the ordinary fares."

The only alternative is to utilise the offer of Messrs. Cook & Son to grant tourists' tickets. This effects a saving of about 10 per cent., and those who think of taking advantage of the offer should communicate direct with Messrs. Cook, Ludgate Circus, London, E.C., who will give all the rates.

Those going on to Paris get the reduction of a fare and a quarter to London and from London to Paris *via* Newhaven, with a break at Brighton. A certificate must be obtained before the ticket, either from Mr. Savage or from the Polytechnic, 309 Regent Street, W.

The Conference at Brighton will conclude on Thursday night, and on Friday Messrs. Black and Yates (Town Councillors) will organise parties to visit several of the municipal undertakings—the electric light works at Southwick, the pumping stations, the North Road distributing station, and the telephone exchange. After these have been seen the visitors to Paris will go on to Newhaven and catch the night boat at 10.50 p.m., reaching Paris at 7.5 a.m. Saturday. Arrangements are made to go to the Hôtel du Palais, in the Cours la Reine, where breakfast will be provided. Three day excursions (to Versailles, Fontainebleau, and a drive round Paris) will be provided for Monday, Tuesday, and Wednesday. Among other matters arranged are visits to the Ecole de Pharmacie, the Sorbonne, the Pasteur Institute, the Laennec Hospital, under the guidance of a gentleman who knows the places well. The cost, including the three day trips, will be about 6*l*. The week's trip will expire on Friday, August 4, after dinner, and the return is by that night's boat.

Births.

ARNOLD.—At 32 Friern Road, East Dulwich, S.E., on July 6, the wife of Julius Arnold (London representative of Messrs. R. Gibson & Sons, Ltd., of Manchester), of a son.

MELLING.—At 105A High Street, Tunstall, on July 8, the wife of J. D. Melling, chemist and druggist, of a son.

SMITH.—At Ladybank, Fife, on July 9, the wife of R. Smith, chemist and druggist, of a son.

Marriages.

MURRAY—PACK.—At the Parish Church, Brixton, on July 3, Thomas Ninian Murray, chemist and druggist, to Edythe Kate, daughter of Mr. J. W. Pack, chemist and druggist, Ashwell, Herts.

PENMAN—SMITH.—At Newseat of Ardo, Methlick, Aberdeenshire, on July 5, by the Rev. John Moore, B.D., Bridge of Allan, assisted by the Rev. John Taggart, U.F. Church, Methlick, David Penman, chemist and druggist, Johnstone, to Charlotte, fourth daughter of Mr. George Smith.

SMITH—RICHARDSON.—At Panmure Hotel, Monifieth, on July 7, by the Rev. A. B. Connon, B.D., Harry Christie Smith to Jean Shepherd, daughter of the late Mr. Charles Richardson, chemist and druggist, Dundee.

STEVENSON—KITCHINGMAN.—At St. Luke's Church, Wandsworth Common, S.W., on July 11, J. R. Stevenson, Pharmacie Béal, Paris, to Florence, youngest daughter of Mr. J. G. Kitchingman, Barnard Road, Clapham, S.W.

Deaths.

BAILEY.—At Nottingham, on July 7, Mr. Samuel Bailey, chemist and druggist, of Sneinton, aged seventy-five. Mr. Bailey, who retired from commercial life about fourteen months ago, carried on business at Sneinton for upwards of half a century. An ardent musician, Mr. Bailey was President of the Sneinton Glee Club and one of the oldest members of the Nottingham Sacred Harmonic Society.

CHURCHILL.—At his residence, Château d'Hargeville, Seine-et-Oise, France, on May 11, Dr. John Francis Churchill, M.D. (Paris and St. Andrews), formerly of 82 Wimpole Street, aged eighty-six. Dr. Churchill may be remembered as a practitioner who for nearly half a century specialised in consumption, and to whom is largely due the

popularity of hypophosphites in the prevention of consumption, he having published a treatise on the subject in 1859. He was educated at the Sorbonne, and graduated as a Bachelor of Letters in 1837, taking his degree of Bachelor of Science in the following year. Ten years later he graduated as M.D. in Paris, and in 1857 obtained the M.D. degree of St. Andrews University, but he did not register in this country until 1870. His works on the treatment of consumption with hypophosphites were published in England and France, and several of them went through many editions, the last being "Letters to a Patient on Consumption and its Cure with Hypophosphites," published in 1888. His name is associated with proprietary syrups of hypophosphites, which at one time were in considerable demand; and about fifteen years ago he devised an inhalant which he prescribed under the name of "Spirone." He practised both in London and Paris until his retirement about ten years ago.

GILES.—At Newport, Mon., on July 2, Mr. William Egbert Giles, pharmaceutical chemist, aged forty-nine.

PEEBLES.—At 68 High Street, Kirkcaldy, on July 8, Catherine Robertson, wife of Mr. John Peebles, chemist and druggist.

WARD.—At West Norwood on July 12, Mr. John Slinger Ward, F.C.S., pharmaceutical chemist, of Messrs. Hodgkinsons, Clarke & Ward,

Whitecross Street, E.C., aged fifty-six. Mr. Ward, who had long suffered from a severe intestinal trouble, had colotomy performed on him a few years ago, and he recovered in a remarkable manner, a circumstance largely due to his cheerful and courageous disposition. Another operation became necessary and was performed this week, but he never rallied, and passed away on Wednesday evening. Mr. Ward got his pharmaceutical education at the School of Pharmacy,



Bloomsbury Square, W.C., and passed the Minor and Major examinations in May and November of 1869, obtaining the Society's bronze medal in the annual examination for Major men. He then went to Messrs. John Bell & Co.'s as an assistant, afterwards getting into Messrs. Herrings laboratory, where he extended his experience of manufacturing processes and the wholesale trade. From there he went to York to take charge of Messrs. Clarke, Bleasdale & Co.'s laboratories, and returned to London for a similar position with Messrs. Hodgkinsons, Treacher & Stead. Thirteen years ago he purchased a partnership in the business, and in conjunction with Mr. Charles Hodgkinson and Mr. Frank Clarke it has been carried on under the present firm-name. Mr. Ward was a thorough man with a wide knowledge of pharmaceutical sciences, chemistry and materia medica especially being his favourite studies, and he contributed numerous papers to pharmaceutical literature. He leaves a widow and one little daughter.

WHITE.—At Whittington Moor, Sheffield, on July 10, Mr. John White, chemist and druggist, formerly of Masborough Street, Rotherham.

SHEFFIELD on Wednesday, July 12, was transformed. The city was ablaze with colour in celebration of the visit of the King and Queen. Favoured with fine, if dull, weather, their Majesties went through a very full programme of events, the chief item in which was the opening of the new University buildings. The decoration of the route of the procession was most elaborate, and seven triumphal arches, mostly very beautiful and effective in design, formed a feature of the scheme. Pharmacists whose places of business were on the route of the procession took a prominent part in the arrangements, particularly Mr. George Squire, of Haymarket, Mr. G. T. W. Newsholme, of High Street; Mr. H. G. Williams, of The Moor; Mr. J. M. Furness, of Fitzwilliam Street; and Mr. J. F. Eardley, of Glossop Road.

Westminster Wisdom.

(From our Parliamentary Representative.)

WEIGHTS AND MEASURES REGULATIONS.

Uncertainty as to the nature of the regulations to be framed in connection with the Weights and Measures Act passed during last Session caused a question to be addressed to the Board of Trade by Mr. Samuel Roberts. The regulations made by local authorities under the Act of 1889 are in force until the issue of the new regulations, but Mr. Bonar Law promised that in drawing up the latter the necessity for their not clashing with their prior approval of samples which have been submitted to the Board should be borne in mind.

AGRICULTURAL POISONS BILL.

Up to the present Mr. Ailwyn Fellowes has not brought forward the Bill to give greater freedom in the sale of agricultural poisons. The pressure of Parliamentary business, indeed, is such as practically to preclude the possibility of this being done; though this has not deterred Mr. Alexander Cross from soliciting, in the form of a question, a definite *yea* or *nay* from the President of the Board of Agriculture as to his intentions in regard to the introduction and prospects of such a measure. Mr. Cross, in the course of his interrogation, took occasion to remind Mr. Fellowes that the necessity for the Bill was enhanced on account of the "efforts made to monopolise the trade in such articles by retail druggists, to the injury of these industries of farming and agriculture." This question was asked on July 15.

Mr. Ailwyn Fellowes, in reply, said: The Bill in question falls within the province of the Privy Council rather than my own, but I am communicating with my noble friend the Lord President as to the advisability of its introduction at no distant date.

Mr. Alexander Cross: Is the Bill in a state of preparation?

Mr. Fellowes: Yes.

TRADE-MARKS BILL.

The report and special report from the Select Committee on the Trade-marks Bill, introduced by Mr. Fletcher Moulton, states that in the opinion of the Committee it is desirable to maintain the existing organisation of the Patent Office; that further latitude in the definition of a trade-mark is desirable; that parties interested should have the option of appeal, on application for registration or in opposition thereto, either to the Court or to the Board of Trade, but that if the Board of Trade is selected there should be no further appeal, unless the Board elect to refer the matter to the Court. The Committee recommends also that where there has been no *bona-fide* trade-user of a trade-mark for five years since the last registration the trade-mark may, on the application of any aggrieved person, be removed from the register, and that after seven years it shall not be open to attack the validity of the original registration. The Committee does not think that the present power of the Board of Trade to make general rules for classifying goods and regulating the business of the Patent Office should be altered; and they recommend the insertion in the Bill of a "Manchester Clause." The necessary amendments have been inserted in the Bill, which is now going through the third reading.

Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

BOOTS, LTD., have opened a new branch at Vaughan Road, Llandudno.

MR. G. H. M. KING has commenced business as a chemist at Southend-on-Sea.

THE Portway Drug-stores have been opened at 84 Portway, West Ham, E.

BALDWIN'S DRUG-STORES have been opened at 145 High Street, Camden Town, N.

MR. C. P. CAMM, chemist and druggist, has taken over the business of the late Mr. Llewellyn Williams at New Buckenham, Norfolk.

MR. J. L. LEWIS, of Harlesden, has taken over Bosuston's drug-stores, 295 High Road, Chiswick, W., which he will carry on as a branch.

THE business premises of Mr. W. K. Daws, chemist and druggist, at the junction of Priory Road and Old London Road, Hastings, have been demolished for road-widening purposes.

Personalities.

THE "ILLUSTRATED INTERVIEW" in the "County of Middlesex Independent" of July 5 is with Mr. Andrew Pears, J.P. The inception and progress of the business of A. & F. Pears, Ltd., is told by Mr. Pears, and there are various illustrations of the Pears' Soap Works at Isleworth.

MR. N. H. MARTIN and Miss Martin, of Newcastle-on-Tyne, leave next week for a ten weeks' tour in Canada as far as Vancouver, returning *via* the United States. Mr. Martin proposes to attend the annual meeting of the American Pharmaceutical Association, of which he is a member, at Atlantic City in September.

MR. C. W. BRYDGES, who returns to the Cape this week as representative in South Africa for Messrs. Evans Sons Lescher & Webb, Ltd., served his apprenticeship with Messrs. Hicks & Co., of Cardiff, and at the end of it came to London to seek experience in the druggists' sundries trade. This he obtained in a City house. Then he had three years' experience of export business on the wholesale druggists' side, and seven years ago went out to the Cape for a position on the firm's resident staff. During recent years he has travelled through the Colonies, and is well known to the trade there. Mr. Brydges is a man of sanguine temperament, who has great hopes for the future of South Africa, and not less for the drug-trade there.



DR. ALFRED S. GUBB, M.R.C.S., of Mustapha, Algiers, and Aix-les-Bains, has written an account of Algiers as a winter resort, which is sufficiently sparkling to be appreciated by laymen, yet giving all those climatic data which are indispensable to physicians in deciding where their patients should winter. It seems from Dr. Gubb's observations that those with pulmonary diseases, asthma, cardiac complaints, rheumatism and gout benefit by a stay in Algiers, and if they go with Dr. Gubb's book in hand they will get diversion enough to forget their troubles. The book bears the imprint of Messrs. Bailliere, Tindall & Cox, Henrietta Street, London, W.C.

Coming Events.

Notices for insertion under this heading should be received by Editor on Wednesday of each week.

Wednesday, July 19.

Newcastle-on-Tyne Chemists' Association and Sunderland Pharmaceutical Association. Joint excursion to Plessey. Train leaves Newcastle (Central Station) at 2.35 p.m., Sunderland at 1.35 p.m. Tickets may be had from Mr. W. Pescod, 60 Osborne Avenue, Newcastle-on-Tyne.

Thursday, July 20.

Proprietary Articles Trade Association. River trip of members and friends. Train leaves Bishop's Road Station at 9.25 a.m. for Staines. Thence by boat on the Thames to Windsor, Bourne End, and Henley. Luncheon will be served at the White Hart Hotel, Windsor. Tickets (10s. 6d. each, inclusive) can be had from Mr. W. S. Glyn-Jones, Secretary, 184-185 Temple Chambers, Temple Avenue, E.C. [There are only twenty tickets left.—ED.]

Peterborough Chemists' Association. Summer outing to the "Dukeries." Train leaves G.N. Station for Workop at 8.44 a.m., thence brakes will convey the party to Clumber, Thorsby, Edwinstowe (where dinner will be served), through Sherwood Forest to Welbeck Abbey. Particulars can be had from Mr. J. W. Hall, Hon. Secretary, 6 Long Causeway, Peterborough.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Dispensing Casuistry.

SIR,—“Xrayser” seems to invite a little discussion on dispensing casuistry. I have so high an opinion of the skill and conscientious conduct of pharmacists that I am disinclined to adopt his suggestion to treat the matter of which I complained “as a simple commercial one.” I once knew a very conscientious chemist, who was so scrupulous in the matter of dispensing that he consulted a clerical casuist as to what was his duty when he had not the precise drug or chemical ordered in a prescription entrusted to him to dispense. The clergyman told him if he had not in stock, and could not readily procure, a specified ingredient he could satisfy his conscience by using the nearest article in his pharmacy in the place of the one prescribed. Doubtless if I ordered liq. morphinæ bimeconatis, and the chemist had none in stock, he might, under certain circumstances, substitute morphinæ acetat., but it would be an injustice to me and my patient if he claimed the right to do so for his own convenience. I once ordered an ointment for a patient in the North of England, the base of which was ung. sambuci flor. As the application proved to be of an irritating character, I asked to see what had been compounded, and discovered that ung. sambuci virid. had been dispensed. The chemist told me that as he was “out of” the ointment of the flowers he felt justified in sending that made from the leaves. On “simple commercial” principles perhaps he was, but the pharmacists as a body would not, I think, admit this. With regard to the questions propounded to me by “Xrayser,” I reply that the dispenser ought not to advise a doctor’s patient to increase the doses ordered, although the number of doses purchased by the customer would be a mere commercial transaction. Certainly I should be very much surprised to learn that a chemist in any way connived at my patient taking a bottle of iron or any other tonic while under my treatment. If I discovered such an arrangement I should advise the patient either to change her doctor or her chemist, and that for obvious reasons. Casuistry in moral theology bears in England a rather doubtful reputation. May a starving man steal a loaf? Yes, says Cardinal Newman. May we under any circumstances whatever tell a lie? The strict moralist says No, but our commonsense says Yes, if, for example, a great crime could not otherwise be prevented. But as in casuistry, studied as a science, hair-splitting is unavoidable and altogether unprofitable for people of commonsense and upright conduct, so I think we need not become medical or commercial casuists to settle the question of the misfeasance of my “nice young man.” The chastened aspect of the individual after an interview with his principal sufficiently indicated that his conduct in this particular was not quite up to the standard of pharmaceutical ethics. But, as your clever collaborator says, the matter “presents great possibilities of debate.”

Yours faithfully,

EDW. BERDOE, M.R.C.S., L.R.C.P.E.

London, July 8.

Long Live Quackery!

SIR,—I dissent entirely from “Xrayser’s” comments on the Liquozone verdict, and I particularly demur to the ulterior doctrine implied in the avowment that the medical profession is beholden for many, if not most, of the remedial agents in its *armamentarium* to the highly ingenious and disinterested researches and discoveries of a motley crew of “herbalists, pharmacists, quacks, Red Indians, negroes, enterprising Americans, and learned Germans.” Assuming the accuracy of this as a statement of historic fact, for argument’s sake, would “Xrayser” have us deduce from it

that we are to be complaisant towards quack-medicines and quackery because they may be valuable auxiliaries to medical science? Or, further, that because in the past order of evolution empirical methods had to precede scientific theory and practice, therefore in a distinctively scientific age we are still to prefer and encourage the crassest empiricism, since it is always possible that it may continue its traditional service to science? This is a *reductio ad absurdum*; but it is the inevitable upshot of “Xrayser’s” *obiter dictum*. And it follows that when empiricism proclaims that a dilute solution of sulphurous acid possesses all the properties, and will produce all the effects, of the panacea of Alexander the False Prophet, or any of the other great unrequited, unscientific geniuses of history, the modern, merely scientific therapist ought, of course, to be suffused with unspeakable gratitude to the “enterprising Americans” who have discovered for him—lazy, unenterprising animal that he is—this interesting but hitherto unsuspected marvel. Of all the apologies that have ever been offered on behalf of quackery and its works, surely this is the most grotesque. As a civilised being, who also bears the courtesy title of pharmacist and pleads guilty to some solicitude for the dignity and honour of his calling, I bitterly deplore and resent the alarming development of the traffic in nostrums, and the unwilling complicity in it of the pharmacist. Persistent attempts are made, often of the most insidious character, to bribe or intimidate the chemist to aid and abet the quack-medicine proprietor’s exploitation of the public; but, in spite of economic pressure, the pharmacist, as a legally appointed guardian of the public safety in relation to the sale of medicines, ought studiously to hold aloof from any such demoralising compact, even although the State virtually puts a premium upon the sale of all nostrums by indiscriminately issuing medicine-stamps for any preparation whatever which is legally diutable, without the remotest inquiry or concern as to its composition or suitability for the purposes for which it is recommended. Nevertheless, I am not to be daunted by the *non possumus* of “Xrayser,” or any authority, however eminent, to the demand for an abolition of the evil. “Xrayser” is welcome to his pleasantries at the expense of the well-meant recommendation of the Liquozone jury, but perhaps the course therein suggested, or one on similar lines, is not quite impracticable, and, in any case, considering the magnitude of the issues at stake, it is worth trying. Finally, while I have every disposition to pay tribute to your editorial perspicacity and prescience, I sincerely regret that these attributes should have been illustrated in your prediction of the collapse of the New Zealand law which required the disclosure of the composition of nostrums imported into that Colony. It is lamentable that the vested and sinister interests involved in the nostrum traffic should have proved prepotent over what was undoubtedly a courageous effort to suppress a great abuse. The law, if enforced, would soon have put an end to the sale of nostrums in New Zealand, besides furnishing an inspiring moral lesson *pour encourager les autres*. But the reform is only delayed, not destroyed. *Carthago delenda est* posterity will have the privilege of surveying in its museums, with emotions of mingled amazement and pity, the relics of the charlatany with which their ancestry were so easily beguiled.

Glasgow, July 9.

J. P. GILMOUR.

[If Mr. Gilmour will take the trouble to consult the list of medicines, etc., drawn up by the originator of the “courageous attempt to suppress a great abuse” (*C. & D.*, January 7, p. 17), he will see how necessary the total repeal of the regulation was. The idea of including glycerin pastilles, malt extract, liquor pepticus, and kindred preparations in a list which professed to be one of poisonous, or possibly injurious, articles was too preposterous to pass without protest. As we said at the time, “the well-informed will perceive that the opportunity of proving whether the public will or will not back up the sentiment that secret medicines are inimical to public health is spoilt by the careless manner in which the list has been compiled.”—EDITOR.]

“Goss.”

SIR,—We beg to confirm your notice in last week’s issue—viz. that, although our Mr. Goss is the founder of both S. F. Goss, Ltd., and Mornay Frères, Ltd., there is no association whatever between the two businesses. If any misapprehension has occurred on this point it is no doubt

due to the fact that we have acquired the lease of 201 Regent Street, at present occupied by S. F. Goss, Ltd., but which from June, 1905, will be occupied by ourselves.

Yours faithfully,

MORNY FRERES, LTD.,

SIDNEY F. GOSS, Managing Director.

110 New Bond Street, W., July 10.

Well! well! Not to say Tut! tut

SIR,—In your current issue you have a paragraph stating that "the German Shellac Users' Association offers a prize of 50*l.* for the discovery of an easy and simple method of testing the purity of shellac." I have handled butten lacs. The difference in value between the price of the American resin added by the makers and the price paid for the alleged lac represented more in one purchase than the amount offered as a prize. This reckless prodigality on the part of the German shellac users is calculated to be the undoing of the highly lucrative profession known as shellac faking, and should be nipped in the bud. I think I must really write to friend Kaiser Wilhelm on the subject. 50*l.* all at once; surely they mean marks!

Yours truly,

Birkby, Huddersfield, July 10.

J. HADDOCK.

Dark-room Charges.

SIR,—Bit by bit chemists are giving up their profits. Continually I am being told by tourists that I am the only man they know who makes a charge for the use of the dark-room. If that be true I intend to remain so to the end. People who can afford to take a holiday and indulge in photography can afford to pay 3*d.* for the convenience of changing their plates. And seeing the variety of plates that are kept, and the almost impossibility of getting 5*l.* worth of each kind (so as to secure the carriage paid), it is quite time we combined on this question. Who says Aye?

WATERING-PLACE. (7/64.)

[The general rule is, we believe, to make no charge when a dozen plates or equivalent roll of film is bought at the time the request to change plates is made, but to charge a small fee in other cases. We see no ground for departing from this reasonable rule. If chemists in each district who have dark rooms were to come to an agreement on the subject the mean type of tourist would be handled more successfully.—EDITOR.]

The "C. & D." in the Colonies.

A Queensland subscriber (6/71), writing on June 2, says: "I appreciate your paper very much, as, apart from containing oceans of information most useful to a pharmacist, it keeps him in touch with the doings generally of British chemists and their methods of carrying on business."

Letters in Brief.

EUCALYPTUS OIL.—Mr. A. F. Collins, governing director of Collins's Eucalypti Remedy Co., Ltd., writing in regard to a paragraph on the manufacture of *Eucalyptus Globulus* oil in Tasmania, states that "our information is in error or misleading"—a remark which we cannot accept, as our Australian correspondent is in an excellent position for obtaining and authenticating his information. Mr. Collins proceeds to discuss the merits of *E. Globulus* oil as compared with the oils from other species of eucalyptus, stating that the former has no more therapeutic value than the oil from *E. dumosa* and *E. oleosa*. He adds:

"Eucalyptus oils, whether of the *dumosa*, *oleosa*, or other species, have for a long time been sold under the label of *Eucalyptus Globulus* at the lower price. We have pointed this out in our advertisements very frequently, and often, when we have had a client ask our opinion of some oil he bought as *Globulus*, we pointed out to him that it had never been a blue gum leaf, and was quite deficient in the peculiar and somewhat nauseous odour of the true blue gum. We had in this way educated many clients to search for the peculiar odour, and we found before long that they were getting it in a modified form. As a matter of fact, if there is any increase in the consumption of *Eucalyptus Globulus* at all (and we doubt it very much), it is because it is being used to blend with the Australian oils, to give them, together with the characteristics they already possess, the aroma of the blue gum. The result is an oil that simply cannot be proved as from other than the *Globulus* species, although the aroma is much more pleasant than the true *Globulus*." Mr. Collins also discusses prices and contracts, and concludes by saying that "not one-fortieth of the oil sold as *Eucalyptus Globulus* is that species."

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

H. C. (237/5).—TOBACCO-FLAVOURS.—Two recipes for these are given in "Pharmaceutical Formulas," the following being the better:

Valerianic acid	...	...	...	m ^x .
Heliotropin	...	...	...	3 <i>j.</i>
Essence of musk	...	...	...	3 <i>ij.</i>
Essence of apricot	...	...	...	3 <i>vj.</i>
Rum (20 o.p.)	...	...	...	3 <i>xij.</i>

Mix.

The formulæ were contributed by Dr. P. H. Davis, a tobacco expert, who was drowned in the *Stella* disaster in 1899.

E. S. (233/20).—FLY-DRESSING OIL for fishermen.—This we believe to be the liquid paraffin of the Pharmacopœia. It is prepared by a process of distillation and filtration, which could not be carried on profitably on a small scale.

H. J. C. (234/68).—BOOKS ON BREWING.—Sykes' "Principles and Practice of Brewing" (Griffin, 21*s.*); Baker's "Brewing Industry" (Methuen, 2*s.* 6*d.*). Why not take up some of the classes of the course in brewing which is conducted at the University in your city?

B. R. H. (240/9).—OXYGEN-WATER as a beverage.—Mr. Albert Cooper, of Kensington, in 1897 patented the use of mixtures of oxygen and carbon dioxide for aerating water, and the patent is still in force. Probably Mr. Cooper would grant you a licence to make the aerated water.

W. G. (232/4).—SELTZOGENE-REPAIR.—The defect you mention of a leaking of the contents of the upper vase into the lower chamber could probably be remedied by pouring some plaster of Paris into the joint between the two compartments.

J. N. H. (234/53).—SOLUBILITY OF BORIC ACID.—Boric acid requires 30 parts of water (at normal temperature) to dissolve it; in glycerin it is soluble 1 in 10. As glycerin is unsuitable for your purposes, you might take advantage of the fact that the solubility of boric acid in water is increased in the presence of tartaric acid, tartrates, and magnesium carbonate (10 per cent.). The so-called boro-borax, the crystalline mass obtained by dissolving equal parts of boric acid and borax in boiling water, has the advantage of increased solubility and neutral reaction.

Velox (241/28).—FILTERING WASTE OIL.—This is a somewhat difficult matter, but is usually accomplished by using one of Wells' filters. These filters have three compartments. In the top one the dirt is allowed to separate, and the supernatant oil syphoned off into the second chamber, where the oil is passed through a filter-pad; the third chamber provides a second filtration.

J. P. (231/67).—FEVER-CURE to suit your label:

Potass. nitrat.	...	...	...	3iss.
Spt. ætheris nitrosi	...	...	...	3ss.
Syr. scillæ	...	...	...	3ss.
Vin. ipecacæ.	...	...	...	3ij.
Aq. cinnam.	...	...	...	3iv.
Aquam ad	...	...	...	3viij.

Dose: One tablespoonful to be taken every three or four hours.

Delta (226/16).—FURNITURE-CREAM ("P. F.," p. 314).—Omission of water is the only means of getting this into a paste, but the resulting product will not be so good as beeswax and turpentine.

Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.), will be esteemed.

7/55. Who are the makers of Savage's penny cloth and felt revivers?

6/53. Who are the makers of "Warren's ventilated elastic bandages"?

4/50. Address of makers of "Berry's gripe-water" and "Berry's teething-powders."

7/57. Address of makers of 1-oz. (about) china perfume-bottles, reverse pear-shaped, swan-necked, and stamped with town arms; circular stamp on bottom "Oriental china."

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., July 13.

ALTHOUGH the total volume of business done has not been large there has been a steady undercurrent, indicating an improvement in things in general, which may eventually become a boom. Perspiring brokers and wholesale druggists ask each other languidly what good there is in speaking about business this weather; but the hot spell has created a steady home consumption for such things as citric acid, tartaric acid, cream of tartar, oil of lemon, ginger, liquorice, quillaia-bark, which is to be by no means ignored. Essential oils are all firmer. These, the advance in salicylates, and the heat are about the only subjects talked of on 'Change. The following table shows the price alterations on the week:

Higher	Firmer	Easier	Lower
Antimony Coriander Ipecacuanha (Rio) Oil, castor Oil, cloves Opium Salicylates Salol Spermaceti	Aloes Curaçao Camphor Oil, cod-liver Shellac	Cream of tartar Insect-flowers Oil, lemon	Cinchona Kola-nuts

Cablegrams.

SMYRNA, July 12, 12.30 P.M. :—There are many anxious buyers of opium, but sellers are tenacious, and sales are made at firm prices, varying from 8s. 10d. to 9s. 3d. per lb. As the new crop is likely to produce less than 3,000 cases it may be expected that 10s. per lb. will be reached.

NEW YORK, July 13, 2.26 P.M. :—The market here is quiet. Opium is higher at \$3.07 per lb. Curaçao aloes is strong at 5c. per lb. Jalap is firm at 9c. per lb. Peppermint oil is neglected at \$2.60 per lb. for tins. Menthol is easier at \$1.80 per lb. Mandrake is easy at 5c. per lb., and ergot is dull at 30c. per lb.

AMSTERDAM, July 13 :—At the auction of cinchona, held here to-day, 11,509 packages of Java bark were offered, weighing 1,067,906 kilos. and containing 53,444 kilos. or 1,870,540 oz. of quinine sulphate. Of the above quantity 5,915 packages were sold at an average unit of 5.80 cents per half-kilo., against 6 cents per half-kilo. paid at the auctions on June 8. The following were the approximate quantities of quinine purchased by the principal buyers: English and American factories, who bought the equivalent of 9,528 kilos.; the Brunswick factory, 3,825 kilos.; Mannheim and Amsterdam factories, 4,973 kilos.; the Frankfurt and Stuttgart factories, 2,750 kilos.; and various buyers, 7,188 kilos. The prices paid for the manufacturing-bark ranged from 10½c. to 58½c., and for druggists' bark from 8c. to 61c. per half-kilo.

German Drug-market.

Hamburg, July 10.

Business continues to be extremely quiet in this market. Camphor is slow of sale at 660m. per 100 kilos. Lycopodium is tending downwards. Ergot is dull at 260m. to 245m. per 100 kilos. Menthol neglected, the spot price being 14½m. per kilo. Condurango is practically dead, 50m. per 100 kilos. being the latest quotation. Fenugreek-seed is lower, the price being 5m. per 100 kilos. on delivery. Jalap is dull at

85m. to 90m. per 100 kilos., but senega seems firmer at 650m. per 100 kilos. Ipecac is strong, Cartagena being held at 11½m. per kilo. and Rio at 12m. per kilo. Spermaceti is reported higher from America, but 245m. per 100 kilos. is the latest quotation. Star-aniseed is quiet at 135m. per 100 kilos. Star-anise oil is also dull at 10½m. per kilo.

Liverpool Drug-market.

Liverpool, July 12.

GUM ARABIC SORTS.—Holders are firm at recent advance, notwithstanding an arrival of several packages, supposed to be new crop, for which there are no limits so far.

ANISEED.—Holders now ask 23s. per cwt. for Russian. Stocks are in small compass.

CITRIC ACID.—Agents for foreign have had all offers withdrawn.

CASTOR OIL.—There is a small arrival of good seconds Calcutta, but it has been sold to arrive. Stocks on the spot are very limited and firmly held at 3d. to 3½d. per lb.; first-pressure French is still quoted 2½d. to 2¾d.

GINGER (AFRICAN).—There have been sales at 24s. per cwt. in transit for New York; good old on the spot is scarce, and worth 25s.

QUILLAIA BARK.—A recent arrival sold from the quay at 16½. 12s. 6d. per ton; price in store is 17½. per ton.

GUINEA GRAINS.—Holders ask 37s. 6d. to 40s. per cwt. for the limited stocks offering.

SPERMACETI.—An arrival of 30 cases Chilean will be offered at auction on Friday. Holders talk of 1s. 1d. per lb.

ACID, CITRIC.—English continues very firm at 1s. 4d. per lb., with every prospect of a further rise; it is anticipated that prices will not recede until new crop (October). Foreign is 1s. 2¾d. to 1s. 3d.

ACID, TARTARIC.—Steady. Foreign, 10¾d. to 10½d.; English, 11½d. to 11½d.

ALMONDS.—Towards the end of last month Bari resumed the sale of future deliveries on the Messina market, thus indicating that Bari had the larger crop. The Messina crop promises a good average, but is not exceptionally abundant. Current quotations are for P. and G. sweet 59s. 9d. prompt, and 1s. less for October; P. and G. bitter 67s. prompt, and 65s. for October shipment. These prices are per cwt. of 50½ kilos.

ALOES.—Curaçao remains firm, but no business has been done since the sales of last week. The shortage is likely to enhance prices, as shippers will not make contracts in view of the uncertainty regarding the new crop. American advices state that it is doubtful if the yield will be more than 2,000 cases, as against 5,000 cases last year. The exports of aloes from the island of Bonaire during 1903 amounted to 24,014 kilos. against 31,599 kilos. during 1902, and 12,695 kilos. during 1901. The island of Aruba exported 192,363 kilos. during 1903, 432,349 kilos. in 1902, and 185,720 kilos. in 1901. The imports at Curaçao during 1903 were 14,230 kilos. against 46,980 kilos. during 1902, and 42,490 during 1901; the re-exports from the island of Curaçao itself are not stated. These figures are abstracted from the report of the British Consul of Curaçao, which does not include the figures for 1904.

ANTIMONY.—A further advance of 2½. per ton has taken place, the spot price being now from 36½. to 37½. 10s. for crude. The cause of this advance is said to be owing to the Japanese having bought up the bulk of the stocks in China. Some dealers in England sold antimony "to arrive" without covering themselves, and are, therefore, now short stocked, so have to buy on the London market and pay what is asked. Regulus is firm at 60½. per ton.

BROMIDES.—The Roessler & Hasslacher Chemical Co., of New York (agents for the German Bromine Syndicate), writing in reference to our remark (p. 906 of our issue of June 10) that "some 2,000l. worth of potassium bromide had already been received in this country from Canada and the United States" (which statement conveys the impression that the bromide of potassium was of European make re-shipped from New York to Europe), states that we are in error. Their customers, they say, have kept the agreement very well, and only a very insignificant quantity of bromide of European make was re-shipped to the other side. As far as they know, a larger quantity of American make of bromide was shipped from the U.S.A. to England, but they very much doubt that this quantity came any way near the value of 2,000l. Under all circumstances these latter shipments

have nothing to do with their sales and agreements with their customers. The amount of 2,000*l.*, we may explain, was taken from the declared values of the imports as shown on the Customs bill of entry.

BURDOCK.—Cut root is scarce and in good demand. Sound root, 47*s.* 6*d.* to 50*s.* per cwt.; old wormy perished offering from Continent 20*s.* to 25*s.*, c.i.f. London.

CAMOMILES.—New crop will, it is anticipated, be ready in three to four weeks; meantime there is a fair demand in retail quantities at steady rates, 55*s.* brown to 92*s.* 6*d.* good white. Advices from the Continent state that the Belgian new crop has suffered severely from heavy hailstorms. Prices will depend entirely on the weather for the next week or two.

CAMPHOR.—There is apparently no crude about, and fancy prices are being paid for small quantities, but no sales of moment are reported. Business in Japanese refined is quiet, $\frac{1}{2}$ -oz. and 1-oz. tablets are quoted at 2*s.* 8*d.* and 2*s.* 9*d.* net; $\frac{1}{4}$ -oz. tablets in steady demand at 3*s.* 2*d.* net.

CAPSICUMS.—Large sales reported; balance of fair bright, partly broken, 26*s.* to 30*s.* per cwt.

CASCARA SAGRADA.—Rather more inquiry. New crop, August-October, rail and steamer, 29*s.* to 30*s.* per cwt., c.i.f. London; 1904 crop, 30*s.* to 31*s.*; 1903, 33*s.* to 34*s.*; 1902, 37*s.* 6*d.* net, wharf, London.

CHILLIES.—Marking time. Zanzibars, 36*s.* to 40*s.* per cwt.; Japanese, 38*s.* to 42*s.* 6*d.*

CORIANDEK.—East Indian seeds are rather dearer; good colour, clean Madras, 20*s.* to 21*s.* per cwt.; Russian, 39*s.* to 40*s.*; Morocco, 45*s.* to 47*s.* 6*d.* English very scarce, very few obtainable; small dark, 42*s.* 6*d.* to 47*s.* 6*d.* for fair seeds.

CREAM OF TARTAR.—No improvement, and a further fall of 1*s.* not unlikely; 90 to 92 per cent. powder is selling at 74*s.* to 74*s.* 6*d.* per cwt., 95 per cent. at 76*s.* to 77*s.*, and 98 per cent. to 99 per cent. at 78*s.* to 79*s.*

CUMIN-SEEDS.—Steady, at 27*s.* 6*d.* for Morocco and 30*s.* for good marks.

GALLS.—There is little demand, but blues are selling at 77*s.* 6*d.* per cwt. Greens and whites are neglected.

GENTIAN.—In steady demand. Whole root is quoted at 18*s.* to 19*s.* per cwt.; cut, 24*s.* to 25*s.* Cheaper prices come from the Continent for the whole root, from 14*s.* to 15*s.*, f.o.b. Marseilles.

HENBANE.—Small quantities of foreign biennial leaves are available at from 1*s.* 6*d.* to 2*s.* per lb.

HONEY keeps very steady, Continental orders having taken a fair quantity off the market.

HYDRASTIS.—For autumn-dug root the price is 6*s.* 3*d.* per lb. New York prices are firmer. Spring-dug is quoted at 5*s.* 9*d.*

INSECT FLOWERS.—Trieste reports open and half-open flowers coming in more freely, and owing to slackness in demand, prices are slightly easier; open, 53*s.* to 56*s.*; half-open, 67*s.* 6*d.* to 70*s.*; closed, 83*s.* to 85*s.*, c.i.f. London.

IPECACUANHA.—Firm, with a higher tendency. Business has been done since the sales in fair lean to bright Rio at from 5*s.* 3*d.* to 5*s.* 4*d.* per lb., but the closing quotation is 5*s.* 6*d.* for lowest quality.

KOLA.—At the spice sales on Wednesday good green nuts sold at 6*d.* per lb.

LIME-JUICE.—Good pale juice keeps at 1*s.* to 1*s.* 1*d.* per gal.; second-class, 10*d.* to 11*d.*

MORPHINE.—Firm at last week's prices; fair sales reported.

OIL, CASTOR.—Firm on the spot. Hull make is 5*s.* per ton dearer. The Hull prices are now for firsts 24*l.* per ton, seconds 22*l.* prompt delivery; for September 24*l.* 5*s.* for firsts, and 22*l.* 5*s.* for seconds; for December 24*l.* 10*s.* for firsts and 22*l.* 10*s.* seconds, barrels included, free ex wharf London.

OIL, CITRONELLA.—The spot price is 1*s.* 8*d.* per lb. in tins.

OIL, CLOVE.—Dearer in sympathy with the rise in cloves. The latest quotation for good English is 3*s.* per lb.

OIL, COD-LIVER.—Not much life this week; one brand quoted 71*s.*, f.o.b. Bergen, with a footnote "firmer." Our Bergen correspondent reports little movement at present.

Some few sales of unrefined cod-liver oil are effected weekly at prices corresponding to 70*s.* to 71*s.* per barrel, f.o.b. Bergen, but neither buyers nor holders show any pronounced interest in handling at this price. The export from Bergen up to date amounts to 5,688 barrels, against 3,702 barrels at the corresponding date of last year.

MENTHOL.—A slightly better tone prevails. Spot Kobayashi, 6*s.* 6*d.*; Yazawa, 6*s.* 4*d.*; Suzuki, 6*s.* 1*d.* To arrive, August-October, 6*s.*, c.i.f.; August-January, 5*s.* 10*d.*, c.i.f. Reports of new crop are conflicting, but cannot lower prices for next three or four months, unless speculators to cover recent sales force prices down. About 30 cases have changed hands, the sales including 25 cases of "Suzuki" brand at 6*s.* 6*d.* per lb. A later cablegram gives the price of "Suzuki" at 6*s.* per lb. c.i.f.—a considerable advance. The following statistics from the "O. P. and D. Reporter" show the exports from Japan during the first three months of 1904 and 1905, quantities being in kin (about $1\frac{1}{2}$ lb.) and values in yen (2*s.* 0*d.*):

	1905.		1904.	
	Quantities. Kin.	Values. Yen.	Quantities. Kin.	Values. Yen.
January ...	23,931	119,245	17,437	168,262
February ...	21,304	106,063	21,174	205,899
March ...	25,982	113,270	10,044	99,548
Totals ...	71,217	338,578	48,655	473,709

The exports during 1904 were 144,148 kin (1,090,742 yen), against 76,851 (804,401 yen) during 1903.

OILS, ESSENTIAL.—*Aniseed Star*—20 cases sold at 4*s.* 6*d.* per lb., spot; c.i.f. price comes over 4*s.* 5*d.* per lb. *Eucalyptus B.P.*—Selling at 1*s.* 1*d.* to 1*s.* 2*d.* per lb. *Globulus*—1*s.* 6*d.* per lb. *Lemon* hardly maintained its higher prices of the past two weeks, and is certainly easier; best oils are quoted on spot at 2*s.* 9*d.* to 3*s.* per lb.

OIL, OLIVE.—Spot prices for Mogador and Levant are 33*l.* to 34*l.*, and for Spanish 33*l.* 10*s.* to 34*l.* From Messina we learn that the recent slight improvement in prices is slowly yielding, stocks being almost exhausted. The reports of the crops state that blossoming is favourable, but the market is entering upon the critical period, and fluctuations in prices may be looked for until the result of the crop is definitely ascertained. The quotations on June 30 were: Yellow Messina 34*l.*, green Messina 33*l.*, burning Russia 37*l.* 10*s.*, Gallipoli 34*l.* 5*s.*, choice Gallipoli 36*l.* 10*s.*, all per ton f.o.b.

OIL, PEPPERMINT.—Very quiet. Japanese dementholised, 3*s.* 9*d.* to 4*s.* on spot. H.G.H., 5-cwt. lots, have sold on spot at 14*s.* 6*d.*, smaller quantities 14*s.* 9*d.*, and now 15*s.* is asked, but low quotations from New York come to hand, offering September, October, and November shipments at 13*s.*, 12*s.* 6*d.*, and 12*s.* per lb., London. These prices keep spot orders very small, buying being quite from "hand to mouth." Spot prices are being kept up by the few holders. Wayne County is steady at 12*s.* per lb.

OPIMUM.—Considerable business of a non-speculative character has been done during the past week at enhanced prices. Crops are stated to be short and stocks have been materially reduced. Fair quantities of manufacturing kinds have changed hands at 9*s.* 6*d.* per lb. Druggists' kinds are selling at 8*s.* 9*d.* and Persian has sold at 22*s.*, but the closing quotation for Persian is 25*s.*

Reviewing the opium market during June, a Smyrna report states that the sales for the month amount to 144 cases, of which 68 cases were for speculation, 23 for England, 42 for the Continent, and 11 cases for U.S.A. Prices to-day are higher than what they were at the end of last month, notwithstanding the small demand from the United States. Had this country come forward for large supplies quotations would have been at least 6*d.* per lb. higher. On the producing markets higher prices are being paid for new crop; it is natural, therefore, that the old drug will soon find a higher level, in sympathy with the new. Speculative buyers boomed prices at the beginning of the month, and now they have stopped. As soon as some encouragement is shown them by consumers there will be probably further speculation, in which case higher prices will follow. From Salonica and growing districts the news continues discouraging. More rain has fallen over a large area of matured poppy fields, where incisions had already been made, and the rain has washed away much of the gum. The official approximate estimate of the crop is at present as follows: 3,500 cases Smyrna and Constantinople and 500 cases Salonica, making in all 4,000, which

already small amount may be further reduced by rain and hot southerly winds. The arrivals in Smyrna to date amount to 110 cases, against 373 cases at the same period last year. The stock in first and second hands is 3,842 cases, against 2,916 even date last year, and in Constantinople 767, against 469 cases.

OTTO OF ROSE.—Very firm, with a prospect of higher prices being reached.

A Bulgarian correspondent states that the new crop is about 10 per cent. less than last year, representing in all about 10,500 ozs. of pure otto. The quality is the finest that has been produced for many years, surpassing even the otto of the crop of 1900. The price is from 10 per cent. to 15 per cent. dearer this year. They range from 16s. to 19s. per oz., according to freezing-point and grade of purity. All pure lots realised commenced above 17s. 6d. per oz., and later in the season 20s. may be reached, as the demand for all pure ottos is very brisk.

POTASSIUM BROMIDE.—An American quotation for July shipment is 1s. 1½d. per lb., c.i.f.

QUICKSILVER.—The imports during June were (according to the circular issued by Mr. A. S. Pickering) 2,001 bottles, as against 4,444 bottles in June 1904. The exports amounted to 1,512 bottles, against 2,667 last year. This brings the imports for the first six months of 1905 up to 32,876 bottles (being an increase of 1,569 on the first six months of 1904), and the exports for the same period now total 12,313 bottles for 1905, as against 10,952 bottles for 1904. The average price has been 7l. 7s. 6d., as against 8l. in 1904. The spot price remains at 7l. 7s. 6d.

QUININE.—Sales in B & S or Brunswick on spot have been made at 9½d. per oz.; but business is still conspicuous by its absence. Business has been done in the last day or two at 9d. per oz., but the closing tone is firmer.

During 1904 821,608 oz. of quinine sulphate were sold at the Bandong quinine auction, the average price of which was 5½d. per oz. This compared with 741,053 ozs. sold in 1903 (average price 9½d.).

ROSE-LEAVES.—Good English petals are being quoted at about 5s. per lb. French red petals are firmer at 1s. 9d. to 1s. 10d. per lb. Pale petals are quoted at 51s. 6d. per cwt. c.i.f.

SALICYLATES.—The advance of 2d. per lb. mentioned as probable last week is now practically *un fait accompli*, although no official intimation has as yet gone forth.

SALOL.—The advance foreshadowed in last week's issue has taken place, 5d. per lb. being the present increase.

SENEGAL.—Slow of sale, the spot price remaining at 2s. 9d. per lb. The New York c.i.f. price is 2s. 8d. per lb.

SENNA.—There are many buyers of Alexandrian pods, but none to offer. The price is nominally 8d. per lb. Broken leaf is quoted at 3½d. to 4d. per lb.

SHELLAC.—The market closes very firm, and fair business has been done during the week at slightly dearer rates. On the spot ordinary to fair TN orange has been sold at from 153s. to 155s., and now 157s. 6d. is asked. For future delivery prices rule higher; sales have transpired of August delivery at 160s., September at 160s., and October at 162s. Calcutta cables note prices 1 rupee higher for TN orange.

SPERMACETI has advanced 1d., the price being now 1s. 1d. to 1s. 1½d. per lb., c.i.f.

SULPHUR.—The struggle between American and Sicilian producers continues. A Messina report states that the Louisiana mines in order to meet Sicilian competition reduced prices for the Northern ports from \$21 to \$20.10. The Sicilians are confident that the American mines will be unable to keep up the competition, as the cheaper labour and the vicinity of the Sicilian mines to the seaboard is sure to tell in the long run. Mr. Fraser, the engineer and director of the Louisiana mines, is to visit Sicily, and it is not improbable that an understanding may be arrived at with the Anglo-Sicilian Co., who, however, show no inclination to lower prices. The latest quotations from Messina, according to advices dated June 30, are for best unmined seconds (in bulk) 77s. 9d. per ton of 13 Sicilian cantars f.o.b., best thirds 72s. 3d., current thirds 70s., refined blocks 84s. 6d. For sublimed flowers pure the price is 102s. per ton of 20 cwt. f.o.b.; current flowers are 95s. 9d.; refined roll in bags 90s. 9d., sticks of usual size 100s., and small-sized sticks 101s. 9d. The last-named are gross in bags and net in casks and cases.

ZINC OXIDE.—A circular was recently issued by a firm of German manufacturers decrying American oxide. It was alleged that the American make in its best form is "absolutely a dirty yellow." Its mixing properties were said to be inferior, "not even comparing with our cheaper sorts." A further light is given, it is said, by the fact, capable of statistical proof, that quantities of German oxides are imported into North America—an importation that cannot be explained if the Americans have an equally good and much cheaper product at their own doors. In reply to this circular the American producers have issued an effective table of statistics, showing that the exports of zinc white (dry) from U.S.A. have risen steadily from 7,140,102 lbs. in 1898 to 16,768,227 lbs. in 1904, while the imports during the same period have decreased from 4,165,518 lbs. to 2,813,490 lbs.

Arrivals.

The following drugs, chemicals, etc., have arrived at the principal ports of the United Kingdom from June 29 to July 12, inclusive: Acetate of lime (@ Montreal) 2,022; acetone, (@ Finme) 121, (@ Stettin) 26; acid, acetic (@ Fredr kstad), 226 chys.; acid, carbolic, (@ Rotterdam) 359, (@ Hambro) 33; acid, lactic (@ Hambro), 18; albumen, (@ Hambro) 12 cs., (@ Marseilles) 13; alum, 850; antimony, crude, (@ Hambro) 668 cs., (@ Antwerp) 3 brls.; argol (@ Naples), 67; arrowroot, (@ St. Vincent) 778, (@ Montserrat) 154; arsenic, (@ Oporto) 141, (@ Barcelona) 140 brls.; benzoin (@ Singapore), 13; bleaching-powder (@ Treport), 12 cks.; bromine, (@ Hambro) 204 cs., (@ Hambro) 83 cs.; buchu, 36; calabar beans (@ W. C. Africa), 28; cassia fistula (@ Dominica), 4; cardamoms, (@ Colombo) 70, (@ Tuticorin) 32, (@ Calicut) 11, (@ Mangalore) 5 cs., (@ Tellicherry) 13; chamomiles (@ Ghent), 10; chemicals, (@ Flushing) 6 pkgs., (@ Rotterdam) 49 pkgs.; cinchona, (@ Havre) 15, (@ Amsterdam) 84, (@ Bombay) 83, (@ Lisbon) 219, (@ Tuticorin) 63, (@ Cochin) 85, (@ Calicut) 424, (@ Madras) 7, (@ Mangalore) 22 bls.; citrate of lime, (@ Catania) 38, (@ Messina) 84, (@ Palermo) 34 cs.; cloves (@ Marseilles), 50; coca-leaves, (@ Colombo) 13, (@ Hambro) 460 bls.; cocaine, crude (@ Callao), 6 cs.; cocculus indicus (@ Pondicherry), 200 bgs.; copal, (@ Hambro) 37 cs., (@ Singapore) 659; coriander seed (@ Madras), 672; cuttle-fish bone (@ Marseilles), 61 cs.; dragon's blood (@ Singapore), 21; drugs, (@ Rotterdam) 15 cs., (@ Dieppe) 1, (@ New York) 327; Epsom salts (@ Hambro) 10 cks.; ergot (@ Hambro), 5; fenugreek, (@ Pondicherry) 638 bgs., (@ Bombay) 267; formaldehyde, 30; gall nuts (@ Toky), 66 cs.; gentian, 16; ginger, (@ Bombay) 2,724 bgs., (@ Jamaica) 211, (@ Hong Kong) 500, (@ Alleppey) 237; glycerine, (@ Boulogne) 40 drms., (@ Venice) 200, (@ Marseilles) 413, (@ Genoa) 20, (@ Rotterdam) 12, (@ Treport) 40; ground nuts (@ Bordeaux), 25; gums (@ Bombay) 238, (@ Pondicherry) 112, (@ Aden) 53, (@ Bordeaux) 10 bls., (@ Philadelphia) 8 cs., (@ Rotterdam) 20, (@ Sydney) 3, (@ Antwerp) 59, (@ Suez) 165; honey, (@ Sydney) 46, (@ St. Lucia) 34, (@ Valparaiso) 12, (@ Talcahuano) 423, (@ Adelaide) 6, (@ Jamaica) 106; insect powder (@ Trieste), 20; iodine (@ Valparaiso), 119 kgs.; isinglass (@ Toky), 20 bls.; lemon-juice, (@ Palermo) 5 pps., (@ Hambro) 25 brls.; lime-juice (@ Dominica), 38; liquorice, (@ Messina) 30 cs., (@ Marseilles) 95 kgs., (@ Bordeaux) 10; manna (@ Palermo), 6; mace, (@ Mangalore) 25, (@ Penang) 13; medicines (@ Boston), 794 pkgs.; menthol (@ Havre), 10 cs.; musk (@ Calcutta), 1 cs.; nux vomica, (@ Cochin) 573, (@ Calicut) 61; oil, castor, (@ Leghorn) 25, (@ Genoa) 15, (@ Marseilles) 32; oil, cinnamon (@ Galle) 3 cs.; oil, citronella (@ Hambro), 5 cks.; oil, lemongrass (@ Cochin), 36 cs.; oil, olive, (@ Genoa) 12 brls., (@ Marseilles) 1,250; (@ Bordeaux) 322; oil, turpentine (@ Konigsberg), 100 cks.; oil, peppermint (@ Havre), 40 cs.; oils, essential, (@ Messina) 169 pkgs., (@ New York) 36 cs., (@ Palermo) 1 cs., (@ Hambro) 3, (@ Marseilles) 22; olibanum (@ Bombay), 144 cs.; opium (@ Marseilles), 62; phosphorus (@ Montreal), 270; pimento (@ Jamaica), 53 pkgs.; potash chlorate (@ Gothenburg), 79; quassia wood (@ Nevis), 25 tns.; quillaia bark (@ Hambro), 38 bls.; quinine (@ Rotterdam), 10 cs.; rhubarb (@ Toky), 28 cs.; roots, larks, etc. (@ New York), 118; saccharin, (@ Rotterdam) 12 cs., (@ Hook of Holland) 1 cs.; saffron (@ Valencia), 1; sal ammoniac, (@ Amsterdam) 49, (@ Rotterdam) 5 cks.; sandarac (@ Mogador), 99; sandalwood (@ Calicut), 197; sarsaparilla (@ Panama), 20; scedlac (@ Calcutta), 50; shellac, (@ Calcutta) 1,413, (@ Havre) 25; snermaceti (@ Valparaiso) 30 cs.; sugar of lead (@ Hambro), 19 cks.; senna (@ Bombay), 9; tartar, (@ Messina) 101, (@ Naples) 24, (@ Barcelona) 62, (@ Hambro) 11 cks., (@ Marseilles) 126, (@ Rotterdam) 5, (@ Bordeaux) 3; tamarinds (@ Barbados), 50 brls.; tonka beans (@ New York), 11 cks.; turmeric, (@ Bombay) 51, (@ Calcutta) 1,000, (@ Cochin) 39.

Pharmaceutical Society of Ireland.

COUNCIL-MEETING.

ON July 5 the monthly meeting of the Council was held at the Society's House, 67 Lower Mount Street, Dublin. The President (Mr. W. F. Wells) was in the chair, and there were also present the Vice-President (Dr. Walsh) and Messrs. Vincent Johnston, Michie, W. J. Baxter, J. P. (Coleraine), Connor (Newry), T. N. Moffatt (Belfast), Golden (Birr), G. D. Beggs (Dalkey, Dublin), Blair (Cork), J. Smith (Hon. Treasurer), Watson, Batt, and F. W. Brittain (Drogheda).

CORRESPONDENCE.

A letter from Mrs. Simpson, conveying the sincere thanks of herself and her family to the Council for their letter of condolence on the occasion of the death of Mr. Simpson, formerly a member of the Council, was ordered to be entered on the minutes.

The Irish Privy Council wrote approving of the appointment of Mr. George Brown as Examiner in Pharmacy to the Society.

From the Colonial Office came a letter enclosing a copy of the law passed in the Island of Cyprus, under which Irish pharmaceutical chemists are entitled to registration there without examination.

On the reading of a letter from a student relative to his attendances at lectures on practical chemistry,

The REGISTRAR stated that he had written to the student informing him that his certificate should state that he had gone through a complete course, and not only attended portions of several sessions.

The PRESIDENT said the regulation required that all candidates for the licence should furnish a certificate showing "that they had attended a course of practical chemistry of not less than three months' duration" in one of the schools recognised by the Council. The certificate should embrace a whole course taken at one school, and should show that the candidate had worked at the bench for a hundred hours during the course. The regulation had been adopted, the President said, in order to prevent men from taking fifty hours at one place and fifty at another.

The letter of the student was marked "Read," and as it appeared that he had now fulfilled requirements, his certificate was accepted.

EDUCATIONAL.

On the reading of a report from the Certificates Committee,

The PRESIDENT remarked that certificates from Trinity College School, and almost every other school that was recognised by the Council, were signed by the teacher as well as the principal, but he found that certificates from the Belfast school were signed by the principal only. As no one knew the attainments of the student so well as the teacher, he thought the Council should have his signature always to the certificate.

Mr. BEGGS : It is the teacher who ought to sign.

The PRESIDENT : Then the Registrar can write to say so.

Mr. BLAIR : With us the headmaster signs for everybody.

The PRESIDENT : In our own school it is the teacher who signs, and the Registrar as well. There ought to be no difficulty about having the signature of the teacher as a guarantee.

On the motion of Mr. BAXTER, seconded by Mr. SMITH, Mr. D. S. Jardin was re-elected examiner to conduct the pharmaceutical and general chemistry division of the Licence examination.

THE VACANT PROFESSORSHIP.

The next business was the appointment of a professor to take entire charge of the Society's School of Chemistry. Applications had been received from Mr. G. Ebrill, B.A., Balls Bridge, Dublin; Mr. William Cecil Ramsden, University Chemical Laboratory, Trinity College, Dublin; Mr. Francis Dickinson, F.C.S., O'Connell Avenue, Dublin, and Mr. Patrick Kelly, Ph.C., South Richmond Street, Dublin.

The PRESIDENT said it was stated in the advertisements for candidates that applications would be received up to June 27. After that date a gentleman called on him and

said he would like to apply for the appointment, and he told him to send in his application to the Registrar, and that he (the President) would ask the Council whether they would go behind the date mentioned in the advertisement. He then said that he would not apply. Another gentleman had since applied under similar circumstances, and he told him what he told the first. It was now for the Council to say whether they would add to the candidates. He told the applicants to whom he had referred that he did not think it would be fair to admit them.

Mr. JOHNSTON : Who fixed the date?

The PRESIDENT : It is not binding on us. It was a mere matter of convenience. The Registrar put in the date so as to have all the applications on the agenda-paper.

Mr. WATSON moved that the last application be received.

The motion was not seconded.

Mr. BLAIR moved that the Council proceed to elect from the four names on the agenda-paper.

Mr. BEGGS seconded the motion.

Mr. MICHIE moved that the election be adjourned. There was no great hurry about it. The duties would not commence until next October, and it was important that they should get the best man that could be obtained.

The PRESIDENT : I don't think that is an amendment to the proposition before us. If you don't approve of it, you can vote against it.

The PRESIDENT then put the motion in favour of proceeding with the election, and it was carried.

The PRESIDENT remarked, in reply to Mr. Michie, that it would take some time to get the School in order, and that was why it was desirable to have the election at once.

The claims of the candidates were then discussed in committee, and Mr. Patrick Kelly was elected by a majority of seven, the conditions of his election being that he is to resign his seat on the Council, to have the entire charge of the School, and to hold office for one year.

NEW MEMBERS.

On the motion of the PRESIDENT, seconded by the VICE-PRESIDENT, the following gentlemen were elected members of the Society : Dr. Edward Whitley Allsom, Cork; Mr. Charles Edward Digges, Dublin; Mr. James Fleming, Athlone; Mr. Alexander Galashan, Dublin; Mr. John Kissane, Tipperary; Mr. Henry Carson Smyth, Dublin, and Mr. Henry Clement Thackeray, Dublin.



PROFESSOR KELLY.

The following were nominated for membership : Messrs. Daniel Enright, Cork; Fawcett Maxwell, Dalkey, Dublin; Henry Ramage, Sandymount, Dublin; Frank Harley, Bandon; C. B. Vance, Greystones, co. Dublin; William Yeates, Cork; Joseph Ritchie, Belfast; William Dunphy, Cork; Henry P. Slack, Cork, and George Alexander Patterson, Passage West, co. Cork.

This ended the business of the Council.

SHARLAND & Co., LTD., New Zealand.—The report for the year ending February 28 was presented at the annual meeting held on May 2. It showed net profits for the year 5,668/., to which has to be added 204/., carried forward. The directors placed 2,000/., to the reserve fund, increasing it to 7,250/.. They recommend a dividend of 7½ per cent., absorbing 3,650/., and leaving 222/., to be carried forward. In moving the adoption, the Chairman said the turnover had increased rather more than the net profits, owing to increased expenses, due partly to the prosperity of recent years. Salaries and wages increase with general prosperity, and these are mainly responsible for the charge. Insurances against fire and accident to employés were expensive. The itinerant indent traveller seriously menaced the legitimate wholesale trade. He hoped the Government would enact some provisions to compel them to contribute a fair proportion to the revenue of the Colony. The company had 16,418/., invested in properties and plant, and in addition paid a considerable sum in rent. It employed eighty-eight people. The retiring director and auditors were re-elected.

Australasian News.

Communicated by the Australian Staff of "The Chemist and Druggist."

New South Wales.

PROHIBITION OF OPIUM.—The Chinese in New South Wales and Victoria are taking action to support the proposed prohibition of the importation of opium into Victoria on the lines adopted in the New Zealand Act. Evidence has been given before the Tariff Commission in Sydney. Opium was first mentioned by Mr. William Sharland, chemist (representing Parke, Davis & Co.), who supported the request that duties according to exact strength should be levied on opium and spirituous chemical preparations. This would mean more revenue. He had heard eighteen months earlier of opium being imported in the shape of pills that paid only *ad valorem* duty. Yee Hing, managing partner of the firm of On Chong & Co., who import eighty out of every 200 cases that come into New South Wales, gave much interesting information. He had had twenty-eight years' experience of the trade. The duty was 20s. per lb. net, but was raised by the Commonwealth Tariff Act to 30s., the weight of the packages being included in the weight which paid duty. Opium had previously been imported in very thick plate-brass containers, which were seldom known to crack. Immediately on the imposition of the duty these were reduced to the thinnest brass plate, and in a case of 120 tins of opium, containing 48 lbs. net, he had known five or six tins to be cracked, the opium became spoiled, and each tin cracked was a loss to the importer of 32s. The duty on the case of 48 lbs. of opium was 72l. sterling. One hundred and twenty tins weighed by themselves 12 lbs., and the duty on them amounted to 18l. The average duty on smoking-opium was therefore 1l. 17s. 6d. per lb. His firm supplied Elliott Bros., Ltd., and the Australian Drug Co., Ltd., with smoking-opium, which he believed they used for medicinal purposes. He believed that a great quantity of opium was smuggled, and urged the authorities to use greater efforts to prevent this, as it interfered with the legitimate trade of the importers.

Victoria.

FRIENDLY SOCIETIES TRADING.—Notices have gone out to the delegates of the friendly societies in Melbourne for an early meeting to discuss whether the dispensaries established in Melbourne and suburbs should be conducted on the lines of the Geelong United Friendly Societies' Dispensary, where a business of some 3,000l. a year is done over the counter with the general public. The system there employed is that members of the general public are registered as purchasing members at a fee of 1s. a year, and are then entitled to the privileges of the dispensary. The Bendigo United Friendly Societies' Medical Institute has also a regulation that there shall be a restricted form of membership, which shall entitle persons acquiring the same to purchase medicines and other articles required for the relief of sickness or other ailments at the reduced scale of charges, such members to be known as purchasing members, and to have no interest in the funds of the institution.

New Zealand.

THE TARIFF-DECISIONS following have been gazetted with others: Jelly bags, as druggists' sundries n.o.e., 15 per cent.; "Sedna," a preparation of beef extract and port wine, as wine, o.k., 6s. the gallon.

CHEMIST'S LIBEL ACTION.—The Supreme Court at Wellington was occupied on May 10 with the hearing of the alleged libel action in which Herbert Thomas Wood, chemist, Masterton, sues Thomas George Mason, chemist, Masterton, for 500l. damages on account of a letter written by the latter to the hospital trustees regarding the tenders for chemists' supplies to the hospital. The letter alleged that Wood overcharged on articles supplied outside the schedule. The defence denies the libel, and claims the letter as *bona fide*, without malice, and true in substance and fact. When the case was resumed in the afternoon counsel

for defendant announced that the case had been settled. Defendant had no intention in writing to the trustees to charge Mr. Wood with dishonesty, extortion, or unfair dealing in his transactions with the trustees. Defendant's letter was really directed against the system of tendering adopted, and he had, therefore, no hesitation in withdrawing the letter. At the same time defendant asserted that he was never actuated by any malice or spite towards Mr. Wood. The costs have been satisfactorily settled between the parties.

South Australia.

POISONING BY LYSOL.—On May 1 Mr. George Andrew Greer, solicitor, died suddenly. He was thirty-seven years of age and was in the habit of taking a solution of boric acid for an internal complaint. His wife usually mixed it in a jug, and poured it into a small bottle produced. A smell of camphor came from the cork. The bottle was kept on the washstand alongside a blue bottle labelled "Not to be taken," containing lysol. Deceased had complained of feeling unwell, and before going out went in the dark to the bedroom to take a dose of the boric acid, drinking it from the bottle, as was his habit. He returned saying that he had taken the wrong stuff. An emetic of mustard and oil was administered, but within half an hour he was unconscious and collapsed, and died three-quarters of an hour after taking the dose.

South African News.

(From our own Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.
Pharmaceutical Society of Cape Colony.
Natal Pharmaceutical Society.
Transvaal Pharmaceutical Society.
Rhodesia Pharmaceutical Society.
Northern District Chemists' Association.
Pharmaceutical Society of Orange River Colony.

Cape Colony.

THE POISON SCHEDULE.—The Secretary of the Colonial Pharmacy Board, Cape Town, has sent to each registered chemist and druggist of Cape Colony a copy of proposed alterations in the Poison Schedule 13 of Act 34 of 1891 and Schedule 3 of Act 7 of 1899. Chemists are invited to make suggestions, and to say whether any other poisons should be added thereto. The additions and alterations are as follows: **DIVISION I.** *Aconite and its preparations, morphine and its salts and solutions thereof containing 1 per cent. or more of morphine, opium and solid extract of opium.* **DIVISION II.** *Acevanilide, mercuric sulphocyanide, mercuric iodide, morphine and its salts, solutions of, containing less than 1 per cent. of morphine. Oxalic acid and its soluble salts. Straphonthus and its preparations. Sulphanal.*

Orange River Colony.

THE M.O.H. IN THE BOX.—During a prosecution at Bloemfontein of an auctioneer for selling condensed milk unfit for food, Dr. Tomory, the medical officer of health, was subjected to a cross-examination which rather warmed him. The accused asked Dr. Tomory what qualifications he possessed that made him able to condemn milk by smell only, without a bacteriological examination. The doctor said he had since made a bacteriological examination, and had never made a mistake in any condemnations. The accused was eventually fined 3l.

Transvaal.

QUININE DEATH.—At Pretoria on June 12, the infant boy of Mr. H. A. R. Parker, when playing with a bottle of sugar-coated quinine-tablets, uncorked it, and swallowed about twelve of the tablets. The child died shortly afterwards.

A **SMOKING-CONCERT**, under the auspices of the Pharmaceutical Society of the Transvaal, was held at the Grand

National Hotel, Johannesburg, on June 6, Mr. L. Thomas (President) in the chair. There was a large attendance of members and friends, who thoroughly appreciated an excellent and varied programme, which was contributed to by the following artists: Messrs. Hester, Dickson, Bushe, Russel, Sanderson, Pierson, Alter-Lewis, Throsby, Smith, and Fogge. A short address by the President, and the customary vote of thanks, brought the evening to a close. The Committee was much indebted to Mr. A. Purnell (of Lennons, Ltd.) for his assistance in getting such a splendid company together. This was the first social held by the Society, and it was such a success that it is likely to be repeated.

THE SALE OF POISONS.—A meeting of the Medical Council was held on June 13, when the letter from the Colonial Secretary in regard to the supply of Dutch medicines and of poisons to agriculturists came up again (see *C. & D.*, June 17, p. 920). Mr. Dinwoodie, who attended as a delegate from the Pharmacy Board, pointed out that any storekeeper might lawfully sell patent or Dutch medicines throughout the Transvaal, provided the preparation did not contain any of the poisons enumerated in Parts 1 and 2 of the schedule. The Pharmacy Board had considered the point raised in the Colonial Secretary's letter, and offered the suggestion that the Government should not prosecute storekeepers who were situated at a distance of more than six miles from a locality where there is a chemist's shop for keeping and selling any Dutch or patent medicines known to contain poisons. To this the Law Department replied that, while it would be impossible to accept the Board's suggestion, discretion would be used by that department in cases which were referred to it. In regard to the sale of poisons for agricultural purposes, the Board desired him to invite attention to section 51 of the Ordinance, under which importers and general dealers are allowed to deal in poisons provided the magistrate of the district considered them suitable persons to do so. In towns or localities where there is a chemist and druggist he thought it was in the best interests of the people of the Transvaal that the law should not be altered. A brief discussion followed, and on the motion of Dr. Nixon (Heidelberg) it was agreed to reply that in the opinion of the Transvaal Medical Council the sale of poisons for human use should be entirely restricted to chemists.

NATAL PHARMACEUTICAL SOCIETY.

At the annual general meeting of the above Society, held on May 28, to which reference was made in the *C. & D.*, July 1, p. 33, the following reports were read:

SECRETARY'S REPORT.—During the past year the Society has been strengthened by the addition to its roll-book of sixteen new members, all of whom are resident in Durban except one. This fact has naturally brought a great deal of new ideas and opinions to bear upon the work and methods of the Society, and many more meetings have in consequence taken place. There have been three committee and eight general meetings. The increase in the number of general meetings is due to a decision of the Society to hold regular monthly meetings. These have proved a great success, and have been the means of creating new life and interest in the Society's welfare. The finances of the Society are in a flourishing condition, subscriptions having been received from thirty-nine members, and amounting to 20*l.* 9*s.* 6*d.* The expenses have been heavier than usual, owing to the large amount of correspondence. They total 15*l.* 9*s.* The balance-sheet shows 9*l.* 14*s.* 4*d.* in hand. This is all the more creditable when it is considered that the annual subscription is now only 10*s.* 6*d.* each for all members. There have been discussions on many interesting and important matters, including "The Pharmacy Board Election," "The Rights of Chemists as embodied in the Pharmacy Act," "Early Closing," and "Imported Tinctures." The Pharmacy Board election took place in October, Messrs. Forth, Marchant, and Turner, all members of the Society, being returned. The question of early closing has been discussed at various meetings, but as yet no decision has been arrived at. The Legislative Assembly is at present investigating the matter of early closing, and chemists are privately endeavouring to use their influence by sending in private petitions to the Select Committee dealing with the evidence. The Bill is expected to come before the Assembly shortly. The duty, as proposed by Government, on imported

tinctures was eventually withdrawn owing to the representations made by the chemists. The past year has been very fruitful in discussion, and I trust that members will continue to show the same amount of interest in the Society.

THE DISPENSERS' COMMITTEE.—The report from Mr. Champion, President Natal Pharmacy Board, was as follows: I



MR. FLEMING JOHNSTON
(President, Pharmaceutical
Society, Natal).



MR. D. S. B. ANDERSON
(Secretary, Pharmaceutical
Society of Natal).

have to report the following result of the inquiry from Government *re* "Dispensers employed in Government institutions": The compounders and dispensers employed in Government institutions or institutions partially under the control of Government are as follows:

Natal Government Asylum.—The assistant medical officer.
Natal Government Hospital, Durban.—A registered chemist.

Central Gaol, Durban.—A registered chemist.

Central Gaol, Pietermaritzburg.—Warder Masson acts as dispenser, but does not hold this appointment as such.

Railway Hospital, Durban.—F. Adams, late corporal R.A.M.C., stated to be fully qualified.

Railway Hospital, Pietermaritzburg.—H. Knoles has been in the service twelve years.

Railway Hospital, Ladysmith.—W. Wilson, late staff-sergeant R.A.M.C., stated to be fully qualified, dispenses under supervision of Dr. Platt.

Indian Immigration Trust Board Hospitals.—The persons employed in these hospitals compound and dispense medicines, etc., under the supervision of medical officers. At Avoca a registered chemist is in charge.

After discussion the following resolution was carried: "That the attention of Government be drawn to Section 48 of Pharmacy Act 1896, and we, the Pharmaceutical Society of Natal, desire that Government should conform to the Act in all appointments of dispensers and compounders in Government institutions."

The election of officers then took place (see *C. & D.*, July 1, p. 33), Mr. Fleming Johnston being the new President.

The following resolutions were then passed:

"That the Secretary be *ex-officio* secretary of all committees."

"That the committee be instructed to draw up new by-laws and report to next meeting."

"That the attention of the Pharmacy Board be called to the fact that the qualifications of registered chemists are not at present shown on the register, and request that in all future registers such qualifications be stated."

"That the Pharmaceutical Society request the Colonial Secretary to appoint a visiting officer, who shall report to Government that the pharmaceutical examination for qualification as a chemist is carried on in a satisfactory manner."

"That the attention of the Commandant of Militia be drawn to the direct contravention of the Pharmacy Act, 1896, Section 48, in the appointment of an unregistered man as dispenser in the Natal Medical Corps, as notified in the Government 'Gazette' for May, and we, the Natal Pharmaceutical Society, request that this be remedied."

A vote of thanks was accorded Mr. S. K. Elgie, the retiring secretary. The following gentlemen were placed on the roll-book of the Society: Messrs. Irving, Fernie, Morgan, and Watts. The meeting, which was full of animation, closed at 10.30.

The United States Pharmacopœia.

IN resuming our observations on the eighth revision of this national work we are able to give some impressions from within, as the result of a conversation with Dr. Virgil Coblentz, F.C.S., Professor of Pharmacy in the



PROFESSOR V. COBLENTZ.

New York College of Chemistry, who is visiting London for the first time, in connection with the Society of Chemical Industry.

Dr. Coblentz is the son of an American pharmacist, and was intended for the medical profession, but his leanings were more to chemistry, with a preference for pharmaceutical chemistry. So he learnt the rudiments of the craft, and duly graduated as a pharmacist, afterwards proceeding to Germany, where he studied at six different universities, with the view of getting the best that each had to offer for the career he had in view.

Thus he became a pupil of Von Hofmann, Victor Meyer, and Flückiger, amongst others. He in due course obtained the degree of Doctor of Philosophy, and had not long returned to the United States when he became associated with the New York College of Pharmacy, and succeeded the late Professor Bedford in the Chair of Pharmacy.

Dr. Coblentz was not on the 1890 Committee of Revision, but in the Preface to the Pharmacopœia produced by that Committee thanks are accorded to him for continuous aid and assistance. He was appointed on the Committee of the eighth revision, and has acted as Chairman of the sub-committee dealing with chemical tests and reagents, two other chemists being associated with him in this work. It may be remembered that the similar Committee on the last Pharmacopœia consisted of the late Professor Curtman, of St. Louis, and Dr. Frederick B. Power, now of London. These chemists produced monographs which were models of methodical arrangement and precision as to limitation and exclusion of impurities. In our conversation with Dr. Coblentz we mentioned that British chemists have on many occasions held up the U.S.P. as an example to follow in pharmacopœial revision, a fact which he was pleased to hear, and he proceeded to speak of the principal changes which may interest British chemists. But first we may refer to how Dr. Coblentz and his two colleagues endeavoured to ascertain what changes, if any, were necessary in the text. They purchased in the open market specimens of all the different chemicals by makers of repute, and had them analysed. They did not fail either to examine similar chemicals from other sources, and by correspondence with makers they obtained useful information. In time they were able to fix the limit of impurity permissible in cases where absolute exclusion of the impurity means great enhancement of the cost. Thus arsenic, and practically all the heavy metals, are limited to 1 in 100,000 as a maximum. For determining the arsenic a modification of the process which originated with two French chemists was adopted. This is best known as Gutzeit's, and it is so called in the Pharmacopœia. The committee came to the conclusion that the limit 1 in 100,000 is not difficult to attain, especially if manufacturers work with good materials. But that they do not always do. For example, Dr. Coblentz's committee ascertained that zinc residues obtainable from galvanizing-works might be—indeed, were—used for making zinc salts. Now, a great deal of zinc valerate is used in the United States in quite liberal doses, and if this salt is made from galvanizers' zinc it contains so much zinc chloride that there is no saying how long the human stomach could abide it. Hence the very stringent U.S.P. test for exclusion of chloride from zinc salts, which may easily be produced free from it.

The "rubric" now introduced into the Pharmacopœia is another little thing, of high legal importance, which gave the Committee a lot of work. It is the description of the "nature, substance, and quality" of the article more fully described in the monograph. Its object was solely to guide Magistrates in the interpretation of pure food and drug laws. There they have in brief what the thing is; something about which there can be little legal hair-splitting and as little expert scientific controversy. The rubric is that something, in short, which will prevent vexatious prosecution, and ensure that evildoers will be brought to book if administrative authorities are in earnest. This method of helping the law will probably be followed in the British Pharmacopœia in the well-known "description"; it is, in fact, already done, but if the revisers start out with the Sale of Food and Drugs Acts in their minds the descriptions may be more cautious and fuller documents.

Judging from Dr. Coblentz's recital of the details of the revision work, the U.S.P. Revision Committee have had little time that they could call their own during the past five years, and he, for one, well deserves the holiday he is now having. His portrait recalls the German Emperor's face, but Dr. Coblentz is a better-looking man, dark complexioned, energetic, and a sparkling conversationalist. His occasional "Yah" and a warm love for Germany are *kaiserlich* characteristics, no doubt, but he is a vivacious American.

Turning now to the Pharmacopœia itself, we may refer to some of the general principles which are laid down in the Introduction.

The first of these is the definition of the various terms indicative of the

FINENESS OR COARSENESS OF POWDERS.

The 1890 Pharmacopœia, like the B.P., based this definition simply on the number of meshes to the linear inch of a sieve, but the present edition provides for the thickness of the wire—a very important difference. Thus a "very fine" powder, No. 80, should pass through a sieve having eighty or more meshes to the linear inch, and "should be made from gauge No. 38 wire"—i.e., the sieve should be made of No. 38 wire, and not the powder, as the grammatical construction of the sentence would imply. A "fine" powder, No. 60, passes through a sieve made from No. 36 wire; No. 50, "moderately fine," from 35 wire; No. 40, "moderately coarse," from 33 wire; and No. 20, "coarse," from 28-gauge wire.

The directions for carrying out

THE PROCESS OF PERCOLATION

are minute and ample, some practical details being added to what was recommended in the previous Pharmacopœia. Amongst these is a useful instruction dealing with the "rate of flow":

"It is obvious that the success of the process of percolation largely depends upon the regulation of the flow of the percolate; if this should be too rapid, incomplete exhaustion will result, but if too slow, valuable time may be wasted. The rate of flow for extracts and fluidextracts for 1,000 gm. of powder should range from two to five drops a minute; for official quantities of tinctures and preparations of about the same strength, from eight to fifteen drops a minute; and the word "slowly" throughout the text is understood to mean a rate of flow corresponding to this; it is evident that the proper rate of flow should vary with the quantity and character of the drug employed and the density of the menstruum."

Where maceration is specified the process should be conducted preferably at a temperature between 15° to 20° C., and in a shady place. In the preparation of powdered extracts permission is given to employ the dried and powdered marc from the percolation of the same drug as a diluent in place of powdered peeled Russian liquorice root.

TEMPERATURES.

We have already noticed the fact that specific gravities are to be taken at 25° C. (77° F.). At the meeting of the Pharmacopœia Convention in 1900, Carl C. Hunkel, Chicago, submitted a plea for the specific gravity of liquids at 25° C., and this temperature was adopted for specific gravities, solubilities, and volumetric operations, "after much discussion," because it was believed that it would

be generally more satisfactory throughout the United States, the average temperature of laboratories and stores throughout the year being nearer 25°C . than 15°C . The specific gravity of alcohols and wines is, however, stated as being taken at 15.6°C . (the former also at 25°C .), since U.S. alcoholic regulations are still based on the lower temperature.

NOMENCLATURE.

We have referred to some changes of official Latin titles, and to our former note we may add that "hydrochloridum" is now adopted throughout in place of "hydrochloras"; "hydrobromidum" in place of "hydrobromas"; "thio-sulphas" for "hyposulphis"; "phenolsulphonas" for "sulphocarbolas"; "phenol" for "acid, carbolic"; "spiritus glycerylis nitratis" instead of "spiritus glonoini"; "dichromas" in place of "bichromas"; "phenylis salicylas" instead of "salol"; and "resorcinol" in place of "resorcinum." The changes in the official English titles have been correspondingly numerous, and, in addition, glycerin becomes glycerin or glycerol, india-rubber becomes rubber, naphthalin becomes naphthalene, resin becomes rosin, rhamnus purshiana becomes cascara sagrada, and whiskey is now whiskey.

The chapter on Volumetric Solutions generally is valuable, much new matter having been introduced. The various quantities have been corrected in terms of the atomic weights as now accepted; as, for example, Fehling's solution is now made 34.67 instead of 34.64 gm. of copper sulphate, and the

equivalents of 1 c.c. of the mixed solutions are given for inverted cane sugar (0.00475), glucose (0.005), and milk sugar (0.00678). In the preparation of bromine volumetric solution and several others similar changes occur. Directions are given for the preparation of normal hydrochloric acid and half-normal, 1 c.c. of the latter being equivalent, *inter alia*, to 0.0526 gm. benzaldehyde, 0.0333 gm. cinnamic aldehyde, and 0.3802 gm. citral. Mayer's solution has been discarded, and also the normal oxalic-acid solution, only the tenth-normal being recognised. Normal, tenth-normal, fiftieth-normal, and hundredth-normal potassium hydroxide solutions are specified, the fiftieth-normal being employed for titrating the various alkaloids. A new alcoholic half-normal potassium hydroxide solution is also introduced for titrating borneol, bornyl acetate, methol, menthyl acetate, and santalol. This is prepared by dissolving about 40 gm. of potassium hydroxide in about 20 c.c. of water, and adding sufficient alcohol to measure 1.000 c.c. This is now titrated with pure dry potassium bitartrate and adjusted with alcohol, so that exactly 20 c.c. of the diluted liquid shall be required to neutralise 1.8678 gm. of the bitartrate. Weak solutions of sulphuric acid are prescribed for use in the estimation of alkaloids.

Some indicators formerly employed have been discarded, and new ones introduced, the full list including brazil-wood, cochineal, hæmatoxylin, iodeosin, litmus, methyl-orange, phenolphthalein, and turmeric. Volumetric solutions are to be prepared at 25°C ., and titration done not below 21°C . or above 29°C .



LOUISIANA PURCHASE EXPOSITION DIPLOMA.

This is the design used in all the diplomas given to those who obtained awards at last year's Exposition at St. Louis. The wording differs according to the nature of the award—Grand Prize, Gold Medal, etc.—and a similar design is used for the Commemorative Diploma presented to those who served on the Grand Jury. It may be remembered that three Grand Jurymen were chosen from England—Mr. Walter F. Reid, F.I.C., F.C.S., a representative of chemical industry, being one of them. The diploma was designed by Mr. Will H. Low. The central figure represents Columbia. A medal accompanies each diploma. We hope to give illustrations of the medals next week.

Summer Outings.

A Day at Oxted.

MESSRS. DAVY HILL & Co.'s employes held their annual outing on July 1 at Oxted, where a very enjoyable day was spent. Dinner was served at the Hoskin's Arms, a goodly repast having full justice meted out to it. The toast of "The Firm," given by Mr. J. Howell (an employe of the firm for nearly half a century), and ably seconded by Mr. J. O. Devereux, was responded to with much heartiness. A pretty drive in the district and a quiet tea in the grounds adjoining the hotel brought a very pleasant day's holiday to a close.

On the Dart.

THE employes of Messrs. Stone & Son, chemists, of Exeter, had their annual outing on July 1, when they journeyed in a saloon carriage to Kingsbridge, whence they drove to Torcross, a South Devon seaside place. Dinner was provided at the Torcross Hotel. Mr. E. F. Stone occupied the chair, and after the loyal toast proposed "Success to the Firm," which was heartily drunk. The party afterwards drove to Dartmouth for a steamer trip up the Dart to Totnes, where tea was partaken of at the Seven Stars Hotel prior to the journey home by rail.

Cherry Blossom at Folkestone.

THE directors of John Gosnell & Co., Ltd., the well-known proprietors of "Cherry Blossom," invited their staff to an outing on July 5. Favoured with perfect weather, they met at Cannon Street Station in full numbers to catch the 8.40 train to Folkestone, arriving there soon after eleven o'clock. In small groups they soon discovered and enjoyed the charming beauties of this well-known resort, and at 1.15 they mustered at the Queen's Hotel, where dinner was provided for them. Mr. C. P. Gosnell, their managing director, presiding. As enjoyment was the order of the day, few speeches were made, but before rising Mr. Vorley, the Secretary, shortly proposed "Success to the Company." He recalled several faces missing since their last meeting. Mr. Wright, their traveller in the Far East, who was able to be present with them last year, was now far across the sea, but had promised to calculate the time and join them in that toast. The speaker also referred to the absence of their late chairman, Mr. C. A. Gosnell, whose precarious health had compelled him somewhat suddenly to retire from active business life. He welcomed most heartily the son of their managing director, Mr. Ralph P. Gosnell, who was with them for the first time. They recognised in him a new generation, and felt sure he would maintain the good name of Gosnell, which was honoured and respected throughout the whole world. Mr. R. P. Gosnell proposed the health of Mr. Tebbitt, the energetic organiser of the feast, and Mr. Tebbitt replied in

a witty and clever speech. Brakes next took the party to the Royal Oak Hotel at Newing Green, where an *al fresco* tea awaited them, and was much enjoyed. The return journey, through Hythe and Sandgate, brought them back to Folkestone Station, and London was reached about eleven o'clock after a delightful day of sunshine and enjoyment.

Plymouth, Devonport, and Stonehouse Chemists' Association.

THE annual excursion of this Association took place on June 28. A party of over fifty members and friends left Plymouth by the 1.45 p.m. train for Tavistock, where char-à-bancs were in readiness to convey them to Morwell Rocks and Abbey. After enjoying the view of the rocks (which rise to the height of 500 ft.), the party drove over Lamerton Down, through Long Cross, to Brent Tor. This Tor is 1,100 feet high, and upon the summit is a curious little church, which was attached to the great Benedictine Abbey at Tavistock. After exploring the surroundings, the party drove back to the Queen's Head Hotel, Tavistock, where high tea was served. At the conclusion of the meal, Mr. F. Maitland proposed the health of Mr. F. A. Goodwin, President of the Association, the toast being received with musical honours. Mr. Goodwin replied; and Mr. J. Barge acknowledged the work of the Secretary (Mr. F. A. Spear) in making the necessary arrangements. Fine weather contributed largely to the enjoyment of a very interesting excursion.

To Haddon Hall.

ON June 28 the members and friends of the Derby Chemists' Association had their annual outing. The party, numbering over forty, met at the Midland station at 12.25 and travelled in special saloon to Rowsley, arriving there at 1.15. They were met by conveyances and proceeded to the beautiful old baronial mansion of Haddon Hall. The weather was perfect, and its surroundings of meadow and woodland made the historic home of the Manners stand out in majestic charm. The party next proceeded to Bakewell and inspected the fine old church, and then continued the trip to Baslow. At the Wheatshaf Hotel in this pretty village an excellent meal was provided, at which there were numerous speeches, and a very excellent photograph of the company was obtained by Mr. Riley, an active member of the managing committee. At seven o'clock the return journey was commenced to Rowsley Station by way of Chatsworth Park, and to some this proved the most delightful part of the trip. The sun setting on the glorious "Palace of the Peak" and the rhododendrons, by which the house is surrounded, and now in full bloom, made a sight not soon to be forgotten. The return journey was made in the reserved saloon from Rowsley to Derby, which was reached about 9.30.



DERBY CHEMISTS' EXCURSION PARTY.

MANAGER, with a view to succession of small Prescribing and Dispensing business; ample references; long experience. Apply to "Alpha" (75/1), Office of this Paper.

DISPENSER seeks engagement two evenings weekly; 25: 8 years' West-end and country experience. Taylor, c/o Imperial College, 49 Imperial Buildings, Ludgate Circus.

LADY Dispenser, Bookkeeper (qualified, experienced), requires post with Doctor; London preferred; 30s. to 40s. a week. Address, "Oxygen" (68/40), Office of this Paper.

CHEMIST (middle-aged, out of business, experienced) undertakes relief duties; disengaged July 22. J. White, c/o Mr. Twelves, Chemist, Whittington Moor, Chesterfield.

JUNIOR (22), good all-round, except Dispensing, requires situation (S.W. London preferred), at small salary, to be taught Dispensing. Bo widge, 64 Birdhurst Road, Wandsworth.

LOCUM or temporary Manager.—A retired Chemist of considerable experience is open to engagements in Sussex and adjoining counties. "M.P.S.," Highworth, Three Bridges, Sussex.

ASSISTANT or Branch Manager; unqualified; Prescriber; Extractor; Photography; 4 years' references present employer; aged 30; married. Address 71/4, Office of this Paper.

ASSISTANT (22, unqualified, good experience in Dispensing, knowledge of Photography), desires situation in a good-class business; good references. "L.," 14 Bouch Street, Bear Park, Durham.

MANAGER on premises or Assistant outdoors; smart, gentlemanly, energetic; thoroughly experienced; Photographer; interview; married; no family; disengaged. 73/13, Office of this Paper.

AS Assistant or Branch; good all-round Country experience; 45; married; unregistered; energetic, steady, and reliable; good references; disengaged shortly. "R. W.," 15 Fielding Street, Faversham.

WHOLESALE.

TRAVELLER, working all Ireland, calling upon Chemists, Druggists, and Medical Men, is open for good commission for Glass Bottles, &c. 67/24, Office of this Paper.

YOUNG man (21) desires position in Wholesale house (London preferred); over 5 years' good experience in Patent Medicines, Surgical Instruments, &c. 70/6, Office of this Paper.

SMART pushing young man desires situation in good Wholesale house; splendid references; aged 23; height 5 ft. 11 in.; 7 years' excellent retail experience. 70/12, Office of this Paper.

GENTLEMAN, with 20 years' experience in Wholesale Chemist's trade, desires engagement to manage department or take control in provincial house. "Permanent" (71/23), Office of this Paper.

QUALIFIED Chemist (aged 32) desires engagement as Representative or other position of trust, home or abroad; good all-round experience, both London and provinces; good references. 65/23, Office of this Paper.

REPRESENTATIVE, with good connection among Doctors, Hospitals, and Chemists, desires to travel for good firm; first-class references; 5 years last firm; medical exhibition experience. Apply, 70/10, Office of this Paper.

ADVERTISER, smart, energetic, with good references, large connection in London and Home Counties and long experience in Druggist's Sundries, Bottles, &c., is open to re-engagement as Representative or responsible position. 68/28, Office of this Paper.

MANAGER, Secretary, or Buyer.—Advertiser, with over 20 years' experience in the Wholesale and Export Drug trade, is open to an engagement; thoroughly conversant with all branches of the trade. Address, in confidence, "Drugs," Messrs. Deacon's, Leadenhall Street, E.O.

ADVERTISER (29), compelled to relinquish lucrative position in South Africa for family reasons, desires Home employment as Traveller or Manager of South African Department for good Wholesale firm; thoroughly experienced wholesale and retail; late wholesale manager; arriving London end of year; first-class references. Write, in first instance, to present employer—home on holiday—"Johannesburg" (66/30), Office of this Paper.

AGENCIES.

Replies to Advertisements may be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d. Trade circulars and samples can in no case be forwarded.

GOOD Commission allowed to gentleman with opportunity of pushing and selling a Proprietary article, packed in cases. 67/1, Office of this Paper.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

PATENT CHINAWAY SYPHONS combine important hygienic and mechanical features; extremely simple construction; very strong; stringent acid tests have demonstrated that metallic contact of the contents is absolutely impossible. Chemists filling their own siphons should write for sample and full particulars to sole manufacturers, Idris & Co. (Limited), Syphon Manufacturers, 35/43 King's Road, St. Pancras, N.W.

SPECIAL OFFER TO CHEMISTS.—Our new book of Original Designs and Ideas for Advertisers, entitled "The Ad. Illustrated," contains over 100 smart designs, with appropriate wordings; brimful of suggestions for Newspaper and General Advertisements; published at 6d.; as a special offer, we will send copy to the first 100 applicants for 3 stamps. B. Whitworth Hird (Lim.), Advertising Specialists, Norwich.

TO WHOLESALE.—We are Packers of a large variety of 1d. lines—Drugs, &c.; also Chloride of Lime in 1d. packets and bottles, at prices to wholesale again; name on quantities if desired. Write for particulars to "W.," c/o A. S. Morrish & Co., 108 Duke Street, Liverpool.

IMPORTANT NOTICE TO CHEMISTS about opening new Premises.—We have positively the largest and finest Stock of Second-hand Fittings for sale at Unheard-of Prices; drawings and full particulars on application; inspection invited; shops fitted completely. Ruddock & Co., Shop-fitters, 262 Old Street, London.

TO Chemists Fitting or Contemplating Alterations.—Previous to Stock-taking we are offering the very large and well-assorted stock of modern fittings, dispensing-screens, counters, &c., at reduced prices; job lines in recess-labelled bottles, ungt. jars, and syrups; call and view.

PHILIP JOSEPHS & SON, 93 Old Street, London, E.C.

WESLEY BEACH, Chemist and Druggist, resident in Bolivia for the last 34 years, will be in London June and July, and is open to treat with the trade for Contracts, Commissions, and Business generally. Address, c/o Messrs. Evans Sons Lescher & Webb, 60 Bartholomew Close, E.O., or Beach & Barnicott (Ltd.), Bridport, Dorsetshire.

GREAT Bargains in Second-hand Fittings.—The fittings of a shop 13 ft. by 15 ft., £35: 144 stoppered rounds, assorted sizes and gold-labelled, £5 17s. 6d.; 108 recessed-label ditto, £8: 6-ft. counter with glass-case front, £4: 8-ft. ditto with panelled front, 65s.; 4-ft. wall-case, £5 10s.; 3-ft. bent-front glass counter-case, 40s.; 6-ft. mirror-centre dispensing-screen, £5 10s.: 2-ft. perfume-case and desk, 50s.; 4-ft. nest of counter-drawers, 42s.; 12-ft. range of pine drug-drawers, gold-labelled, £6: 12-ft. ditto mahogany, with bevelled glass labels, £8 10s. **R. TOMLINSON & SONS**, Headquarters for Second-hand Fittings, Bond Street, Birmingham.

CHEMIST'S Drug Fittings, second-hand; drawers, glass labels and knobs, lockers, shelves, cornice 12 ft. long, £12: Dispensing counter, upright cases each side, mirror centre to ground, drawers at back 6 ft. long, £10: 7 ft. wall case £10; desk and perfume case 50s.; 10 ft. counter 70s.: glass shelves shaped with fittings complete, 13 in., 15 in., 12 in. wide, 3 ft. long, 50s. **TREBLE & CO.**, Complete Shop Fitters, Rectory Works, Rendlesham Road, Clapton, London, N.E.

McADAM & TUCKNISS, Sharedealers, 30 Tranquil Vale, Blackheath, London, S.E. Telephones 81 and 81a Lee Green.

SHARES FOR SALE (free of commission and subject).—20 Barclay ordinary, 12s. 6d.; 15 Bengers preference, £5 17s. 6d.; 140 Camwall ordinary 6s. 9d., 59 preference 13s.; 2 £50 debentures £42 10s., with dividend August 1: 20 R. Dickes'n preference 93s. 9d. xd.; 50 G. B. Kent preference 19s. 9d. xd.; 215 Lewis & Burrows ordinary 5s. 6d.; 25 preference 13s. 6d.; 100 Pears Soap, 31s. 6d.; 20 Vinolia preference, 87s. 6d.; 200 A. J. White ordinary 2s. 3d., 100 preference, 9s. 3d. xd. **WANTED** (subject).—20 Evans Lescher preference, £5 6s. 3d.; 100 Idris "A" ordinary 26s. 9d., 100 preference 21s.; £500 4 per cent. debentures £85 10s. per cent.; 100 G. B. Kent preference 18s. 9d.; 50 Meggeson ordinary, 25s. 6d.; 20 preference 97s. 6d.

List of shares for sale and wanted sent free on application; highest references to bankers and many chemists with whom we do business; all kinds of Stock Exchange business transacted on best possible terms.

The Fairchild Scholarship and Prizes.

The first examination for these was held in Cardiff, Dublin, Edinburgh, Manchester, and London, on July 11, when the following questions were given:

ELEMENTARY CHEMISTRY.

(Time allowed—One hour and a half.)

1. Describe briefly the chemical relationship between quicklime, chalk, marble, limestone, and gypsum, and give the chemical composition of (a) white-lead, (b) red-lead, (c) black-lead, and (d) sugar of lead.
2. State the relationship between Silica and Silicon; also mention substances in which Silicon or its compounds are important constituents.
3. State what you know about Carbon.
4. What is a chemical equation? Give examples, showing the reaction between (a) Solutions of Calcium Chloride and Sodium Carbonate, and (b) Solution of Potassium Nitrate and Sulphuric Acid.
5. What Pharmacopœial compounds are formed when Hydrogen is combined with (a) Nitrogen, (b) Oxygen, and (c) Chlorine? and give short particulars of each.
6. Define a mechanical mixture as distinguished from a chemical combination, and give examples of each.

ELEMENTARY MATERIA MEDICA.

(Time allowed—One hour.)

1. State the botanical names of the plants yielding the following, and the parts of them used in medicine: Ginger, Linseed, Liquorice, Quinine, Castor Oil, Chamomile, Cascara Sagrada, Podophyllin, Colocynth, Jalap, Salicin, Santonin.
2. What is Opium, and how is it obtained?
3. What are (a) Cloves, (b) Nutmegs, (c) Galls, (d) Cantharides, (e) Figs, and (f) Camphor?
4. Name some of the poisonous plants indigenous to this country used in pharmacy.

PRACTICAL PHARMACY AND PRESCRIPTION READING.

(Time allowed—One hour and a half.)

1. Give the ingredients in Supposit: Acidi Tannici, and state (a) how you would secure the congealing point when making these in summer, (b) what would happen if too high a degree of heat were employed in the process, and (c) what, approximately, should be the right melting point?
2. Give a short definition of each of the following terms: Percolation, emulsification, and infusion.
3. Given a liquid of sp. gr. 1.353, and assuming you wanted a pint of it, but had no measuring apparatus available, could the difficulty be overcome by process of weighing? If so, state how you would proceed, and show figures.
4. You are required to translate the following prescription into English:

Pot. bicarb. ʒij.
Pot. nitrat. ʒj.
Tr. aurantii ʒiv.
Tr. nucis vom. ʒss.
Inf. gentian. co. recent. } partes aequales
Aq. chloroform. } ad ʒviij.

Misce ft. mist. quarum ʒj. ter. in die sum. ante cib.

5. You are required to render into terms of grains and fluid drachms, respectively, the following expressions:

gramme 0.65, C.C. 0.296.
" 0.0016. " 0.118.

6. Carefully examine the following prescriptions, and make any comments concerning them that may occur to you:

(a) Liq. morphinae hydro-chlor. ʒiv.
Spt. chloroform. ʒj.
Aq. menth. pip. ad ... ʒij.
fiat mist.

(c) Potass. bicarb. ʒij.
Bismuth. carb. ʒij.
Liq. morphinae acet. ʒij.
Aquam ad ʒvi.
fiat mist.

Sig.: "Take two tablepoonsful at bed-time on three consecutive nights."

(b) Liquor strychninae ... ʒj.
Aque laurocerasi ad ... ʒij.
fiat guttas.

Sig.: "A teaspoonful in a tablespoonful of lemon-water between meals."

7. Required 8 ounces of an aqueous solution of Phenol 6.5 per cent. How much Acidum Carbolicum Liquefactum B.P. would you require?

ELEMENTARY BUSINESS KNOWLEDGE.

(Time allowed—One hour.)

1. Enumerate some of the poisons which are included (a) in Part I. of the Poison Schedule, and (b) in Part II., and state what you know of the special regulations in regard to the sale of arsenic.

2. If an article costs 1s. 4d. and is sold for 2s. less 25 per cent. discount, what is the rate of profit on returns?

3. Two lots of the same class of goods, amounting to 22l. 10s. are invoiced to the same buyer. One invoice shows discounts of 20 per cent. and 5 per cent., the other 25 per cent. Which are the better terms, and state difference, if any?

4. How does the journal (or day-book) differ from the ledger? and what advantages, if any, are secured by having a well-kept ledger?

London Drug Statistics.

The following statistics are compiled from information supplied by public warehouses. They relate to the receipts and deliveries of some of the leading drugs from and into the London public warehouses for the month of June, 1905, and to the stocks on June 30:

	June		Stocks		1905	
	Landed	Delivd.	1905	1904	Imptrtd.	Delivd.
Aloes.....cs, etc.	66	203	454	707	532	864
Aniseed, star .....cs	—	—	—	31	—	—
Arrowroot .....pkgs	839	691	11,193	11,011	129	550
Balsams ... cks, etc.	17	6	564	691	113	221
Calumba .....bgs	—	44	61	360	82	310
Camphor.....pkgs	1,244	1,168	1,407	922	3,564	4,454
Cardamoms cs, etc.	520	473	2,345	2,947	2,883	2,945
Cinchona.....pkgs	513	1,093	7,044	6,006	7,770	6,900
Cocculus indicus bgs	—	—	77	103	—	16
Cocchineal "	50	51	162	305	257	326
Cubebes "	11	24	585	1,150	11	156
Dragon's-blood.....cs	30	23	65	65	130	102
Galls.....pkgs	506	183	1,835	1,960	1,767	871
Gums—						
Ammoniacum .. "	—	1	5	19	3	21
Animi "	90	38	246	546	307	538
Arabic "	1,193	886	5,663	7,977	4,757	6,983
Asafetida "	—	74	226	339	734	690
Benzoin "	132	175	967	1,290	906	986
Copal "	2,233	3,656	21,616	22,727	35,401	32,507
Damar "	397	268	2,223	1,906	2,596	2,597
Galbanum .. "	—	—	—	3	—	3
Gamboge "	10	37	39	20	127	106
Guaiaicum .. "	—	—	59	60	43	45
Kauri ... tons net	238	166	890	1,090	999	970
Kino.....pkgs	—	4	76	128	2	12
Mastic "	—	—	—	24	—	21
Myrrh, E.I. .. "	50	28	101	70	148	85
Olibanum .. "	61	192	2,348	3,246	1,362	1,046
Sandarac "	20	132	257	1,078	525	1,200
Tragacanth..... "	804	1,457	7,820	4,507	12,442	9,036
Ipecacuanha—						
Matto Grosso .. "	33	32	197	309	118	226
Minas "	—	17	29	96	6	64
Cartagena "	—	—	14	49	1	19
E. I. "	44	33	21	16	114	141
Jalap.....lbs	—	27	209	206	61	50
Nux vomica ....pkgs	71	2	1,585	741	2,208	726
Oils						
Aniseed, star ....cs	—	23	227	344	20	81
Cassia..... "	—	4	134	95	160	129
Castor.....pkgs	127	67	241	549	798	836
Cocca-nut tons	56	59	260	179	546	452
Olve.....cks, etc.	242	256	681	1,084	1,361	1,221
Palm tons	6	7	—	13	6	8
Quinine.....lbs	94	4,082	192,452	212,767	6,881	22,940
Rhubarb.....chts	142	76	160	148	245	334
Sassa-parilla.....lbs	31	50	97	197	334	397
Senna.....pkgs	303	527	2,357	1,380	2,250	2,898
Shellac.....cs	1,670	5,336	25,835	25,544	20,569	37,819
Sticklac..... "	2	116	361	145	489	509
Turmeric..... tons	27	30	320	384	135	187
Wax, bees'.....pkgs	678	586	1,456	1,478	3,171	3,397
" Japan pkgs ... "	—	—	133	569	406	540

* Stocks of essential oils at Smith's Wharf, Red and Bull Wharf, Brewer's Quay are not included.

† Includes quantity at Red Lion, Bull, and Smith's Wharves; also at the Docks.

WHERE TO STUDY.

THE FOLLOWING EDUCATIONAL INSTITUTIONS are advertising in this issue:

South London School of Pharmacy, 325 Kennington Road, S.E.

Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.

London College of Chemistry, 323 Clapham Road, S.W.

Northern College of Pharmacy, 100 and 102 Burlington Street, Manchester.

Leeds College of Pharmacy, Clarendon Road, Leeds.

Manchester College, 225A and 227A Oxford Road, Manchester.

Association Ballads.

THE PURPOSE.

*The men, their aims, their daily irk;
Their troubles, trials, thoughts, and views
On things politic, foes that lurk
In friendly guise, but treach'rous work—
These be the burden of our Muse.*

LXVI. WORKINGTON.

LAPPED by the waves and caressed by the breezes,
Trodden by dalesmen of ancient renown,
County of Cumberland; chemist who pleases,
Searching, will find in it Workington town.

Pleasant, say they, are the townships of Cumberland,
Tranquil and peaceful, from troubling free,
Townsmen exist in a lotus-like Slumberland:
So saith tradition; howe'er it may be.

Once, saith the Scribe, on the Road to the Station,
Wise men foregathered who welded the pill,
To altar of Pharmacy making oblation,
Rites pharmaceutic performing with skill.

Boldly they met in the days that are olden,
Starkly they sang to the Cutter's dispraise:
Faint heart of Pharmacy fain they'd embolden,
Heedless of crowning with laurel or bays.

Hid in the dim, unfrequented recesses
Of years that are fled, all their doings are writ;
Silvered and scant are Dame Pharmacy's tresses,
But chemists of Workington kneel to her yet.

WEST HAM CHEMISTS' ASSOCIATION.

A MEETING was held at Earham Hall, Forest Gate, on July 13. The attendance was small, four members beside the President and Secretary being present. It was decided to postpone the visit to Wright, Layman & Umncy's works till the autumn. A series of short papers were down on the programme. In the first Mr. Blades discussed the Widows Clause, and favoured its modification on the lines suggested by Mr. C. B. Allen; and the President also favoured that view. After a fair conversation, in the course of which Sir John Tuke's Bills were referred to, the subject dropped. The President brought forward some suggestions for the next B.P., chief of which was that the sale of lin. saponis meth. should be legalised. Mr. Blades wanted the popular synonyms given for mag. carb. and pulv. glycyrrh. co. to meet the requests for magnesia and liquorice-powder. The next meeting, on August 10, is to be a forest ramble.

BRITISH PHARMACEUTICAL CONFERENCE.

A MEETING of the Executive Committee was held at 16 Bloomsbury Square, on Wednesday, July 12, Mr. W. A. H. Naylor, President, in the chair. He referred to Mr. Carteighe's bereavement, and was desired to write to him expressing the sympathy of the Committee. A preliminary list of officers for the ensuing year was submitted by Mr. Peck. On the motion of Mr. Peck, seconded by Mr. Gadd, it was agreed that a permanent Research Sub-Committee should be appointed, whose duties should be:

1. To keep the Research List revised by deciding what questions require investigation.
2. To allot the problems to individual members to work out.
3. To advise the Executive in making grants towards the expenses of certain pieces of research work, out of the funds available for this purpose.
4. To regulate the supply of papers for the yearly meetings of the Conference.

The President, Messrs. Bird, Gadd, Greenish, Holmes, Peck, Ransom, and J. C. Umney were appointed as the Committee.

Mr. Gadd proposed that a time-limit should be imposed on the discussion of papers at the annual meeting. The matter was left in the hands of the President.

India and the East.

(News from our own Correspondents.)

THE SIAMESE GOVERNMENT have allotted the sum of 16,000 ticals for a new serum laboratory to be built at Phra-patom.

BUSINESS CHANGE.—Mr. C. F. Pearson, proprietor of Pearson & Co., chemists and general merchants, Secunderabad, has sold out to Messrs. Spencer & Co., Ltd., general merchants, Madras, who took possession of the business as from June 1. The price mentioned is Rs. 70,000.

THE STRAITS POISONS ORDINANCE.—A well-informed leading article on the new Poisons Ordinance appeared in the "Straits Echo" for June 2. It is a trenchant criticism of the weak points in the Ordinance, and the general anticipation regarding the practical working of the measure is somewhat pessimistic.

PILFERING PERFUMERY.—At the Colombo Police Court, on June 22, a young Sinhalese man, named Singho, employed at Messrs. Cargills, Ltd., chemists, was charged with the theft of various toilet-requisites, including brushes, perfumes, and other articles. The accused pleaded guilty, and was sentenced to one month's rigorous imprisonment.

Mr. A. OLDFIELD, chemist and druggist, Ipoh, Perak, Straits Settlement, has sold his business to Mr. David Graham, of Penang. Mr. Oldfield, who is retiring after twenty-five years in the Straits and States, returns to his native Yorkshire heath in good health. He was formerly general manager in Singapore for Maynard & Co., Ltd. Mr. Graham will carry on the business under the name of Oldfield, which is, the "Penang Gazette" says, "a veritable talisman and charm against the evil eye, the devil and all his witches, in the mind of the conservative native."

EXPANDING.—Mr. German Hanssen, of the "Farmacia Belgrano," in the Plaza Independencia, Tucuman, Argentine Republic, has acquired the old-established business of Mr. Ricardo Ibazeta in Tucuman, which he has re-opened to the public.

THE SOCIETY OF GERMAN CHEMISTS held their annual meeting at Bremen on June 15-17. Dr. E. A. Merck, of Darmstadt, in his presidential address, reviewed the development of our knowledge of fermentation organisms and their enzymes, and spoke of the work of Professor Eduard Buchner, of Berlin, whom he described as the founder of a new epoch of physiology, and announced that the Society had decided to present him with the Liebig medal for prominent services in applied chemistry. Professor Buchner thanked the Society for the honour conferred upon him, and described the way in which he had been led to discover zymase, and expressed the wish that his discovery would some day be of industrial use. The first paper was by Dr. B. Tacke, director of the Bremer Fen experimental station, on "The Chemistry of Fen Cultivation and Colonisation." Dr. von Lippmann, of Halle, then spoke on "The Chemical Knowledge of Dioscorides." In the afternoon the business-meeting was held, at which the business and financial reports were read by Herr Lütty and unanimously adopted. Geheimrath Dr. E. Fischer, of Berlin, was elected an honorary member of the Society. On the invitation of the District Association, Nürnberg was fixed as the place for next year's meeting. The question of fees for chemical experts was then discussed, and a resolution was passed on the subject urging the Minister of Public Instruction and of Medical Affairs to draw up a scale of fees for chemical experts which will be an increase on the present fees and more in consonance with the importance of the work done by them. The next matter referred to was the question raised at the meeting at Mannheim of the exclusion of undesirable foreign students from German high schools. At that meeting it was decided to petition the various Federal Governments on the subject, and thus secure a universal opinion. It was explained that there was no desire on the part of the Society to exclude all foreign students from either the Universities or the technical schools, but merely the undesirable element, whose preliminary education was not so high as that prevailing in Germany.

Exchange Column—Bargains.

TERMS.

1^{**d.**} per word with name and address. **1d.** per word if we register the address and attach a number.

No Advertisement inserted for less than 8d.

Limited to the Advertisements of Surplus Stock, not of a Wholesale character, of Shop Fittings (secondhand), Apparatus, Photographic Goods, Books and Periodicals, Formulæ, Addresses Wanted, and Articles Wanted.

DEPOSIT.—The purchaser of anything advertised in the Exchange Column may remit the amount to us, and we only pay the money deposited on advice from the remitter. We charge a commission of 8d. on any transaction of £3 or less, or 1s. if above that amount, which is payable by the purchaser.

Remittances payable to **EDWARD HALSE**, and crossed **MARTIN'S BANK, LIMITED.**

FOR DISPOSAL.

BOOKS AND PERIODICALS.

Quain's Dictionary Medicine, 1895, 2 vols.; offers. **MEDICUS**, 3 Silver Street, Kensington, W.

"Year-books of Pharmacy" for 1870, 1871, 1875, 1876, 1877, 1882; what offers? **HEMSCOTT**, 13 Fulham Palace Road, W.

What offers, cash? Green's "Botany," Newsham's "Chemistry," Squires' "Companion," Southall's, "Selecta Præscript.," never been opened. "A.," 37 High Street, Uttroter.

Will's Books, complete set as new; Scott's Part I.; Bower's "Practical Botany"; Bentley's "Student's Guide to Botany"; Microscope, cost 50s., offers, Perkin & Kipping, 1s. 6d. **LLOYD**, Rosslyn, Hallmead Road, Sutton, Surrey.

OPTICAL AND PHOTOGRAPHIC.

5 × 4 folding Kodak, 32s. 6d. **CRANE**, 143 Lambeth Walk, S.E.

About 100 pairs spectacles and folders, costing up to 2s. pair; giving up selling; 3d. per pair to clear. **INCH**, Chemist, Barnstaple.

Microscopic accessories, splendid condition; lens in brass boxes, Beck's $\frac{1}{2}$ ", 12s. 6d.; $\frac{3}{4}$ ", 6s.; $1\frac{1}{4}$ ", 6s.; 2", 6s.; double nose-piece, 5s.; eye-pieces Nos. 2 and 3, 3s. 6d. each; oil-immersion lens, $\frac{3}{4}$ ", for bacteriology, 30s.; Walmesley's turntable, 6s.; 2 doz. good slides, stained, 2d. each; "Microscope," Dr. Carpenter, 5s.; Lankester's "Half-hours with Microscope," 9d.; popular handbook microscope, Wright, 1s. 6d.; appro. on receipt of cash. "A. E. W.," 72 Archway Road, Highgate, N.

PROPRIETARY ARTICLES.

4 doz. Dobson's black leg drinks, sound condition; what offers? **INCH**, Chemist, Barnstaple.

Cooper's sheep-dip, 50 packets, 33s. 4d., carriage paid. **ROBERTSON**, Chemist, St. Boswells.

7 doz. Keene's corn-cure, $7\frac{1}{2}$ d., 4s. 9d. doz., or lot 31s. 6d. **ROBERTSON**, Chemist, St. Boswells.

SHARES.

Shares for Sale.—See p. 63.

Offers for 10 Southalls preference shares. 9/57, Office of this Paper.

Lorimer & Co. (Ltd.), Wholesale and Manufacturing Chemists, 450 £1 shares (fully paid); will sell part or whole. Address, "P." (71/11), Office of this Paper.

Boots shares, fully paid; Western 20 preference; Lancashire 20 preference; Southern 100 preference; Eastern 21 preference, 50 ordinary; Pure Drug Company 100 ordinary. Offers for whole or part to 8/69, Office of this Paper.

SHOP FITTINGS.

9-foot counter, panel front, and desk with show-case front, 30×30×4, and 6 22-in. bentwood chairs, price 50s. 350 Kilburn Lane, Maida Hill, W.

MISCELLANEOUS.

1 cwt. tartaric acid, large crystals; £5 carriage paid. **BELLAMY**, Chemist, Barnsley.

Large surplus stock labels for proprietaries; nominal prices; state wants. **WILLIAMS**, Medical Hall, Fernoy.

Bottling-wax, 1 cwt. red, 15s.; $\frac{1}{2}$ cwt. each blue, yellow, green, white, 18s. cwt. to clear (4 oz. sticks, 7" parcels). **F. RICHARDS**, 33A Far-riding Street, E.O.

MISCELLANEOUS—continued.

Nest of drawers, 14 feet long, 82, gilt labelled, glass knobs, dovetailed, bay wood, front drawers; cost £27; cheap, £10. **CRANKSHAW'S**, (LIM.), Accrington.

Surplus stock; cheap to clear; 12 to 14, 14 to 16, 16 to 18, and 18 to 20-inch loafahs; new; sample of each sent, 8d. **BUTTERWORTH** 354 Stretford Road, Manchester.

Platinum dishes for water and milk analysis, weight 161 grammes, £20 or offers; Oertling's balance, with weights, perfect condition, £10 or offers. 72/19, Office of this Paper.

Dispensing balance (Allen & Hanbury's), 10s. 6d.; 15-gr. suppository mould for (6), 3s. 6d.; powder folder (Maw), Fg. 1904, 1s. 9d.; all in good condition. **GYDE**, 21 Umfreville Road, N.

What offers? 12 doz. assorted spectacles and folders, cost £9 15s.; 1 doz. gold-filled astigs., cost 44s.; 1 doz. curled side specs., cost 44s.; absolutely new, never been shown. 9/30, Office of this Paper.

Good counter, 16 ft., in 2 sections, has 6 large drawers, each 25 × 21 × 12, and 5 smaller ones, including 2 for slip labels, £5; run of 48 drawers, in 4 sections, the whole 15 ft. long, has glass labels and glass knobs, and bottle lockers under, price £9 10s.; 2 4-gall. pear-shaped can-hoys and stands, 10s. each. "Chemists," 10 Bridge Street, St. Helens.

WANTED.

A cash register. Apply, **DURBIN**, 106 High Street, Wandsworth.

Stuart's tablets, also toilet scaps and Top Not. 41 Scotland Road, Liverpool.

Dental chair, trays, &c.; secondhand; good condition. 68/15, Office of this Paper.

Prismatic field-glass. Price, maker, and power to **DENNIS**, Chemist, Louth, Lincs.

Lady's invalid-chair; good condition. **EVANS**, 4 Great Colmore Street, Birmingham.

Old artificial teeth bought; cash by return post. **DENT**, 3 Hinckley Road, Leicester.

French Codex; tooth-brush case (fig. 2752, Maw), in good condition. **ASHFIELD**, Skanklin.

Sparklet bulbs B.; state lowest price for quantity, carriage paid. **SHEPPERD**, Chemist, Barnstaple.

Wall-fittings as Maw's 2705 or 2706; state lowest price cash; also mahogany window-enclosures. **DAWES**, Hastings.

Gallon retort, tubulated, and Maw's electro-magnetic machine, fig. 130; no reasonable offer refused. **REED**, Chemist, Ilfracombe.

Sanocon e specific, for asthma; advertiser requires small stock. **M. ROSENTHAL**, St. Mark's Vicarage, Whitechapel, London, E.

Optician's trial case; cheap and in good condition; state contents and cash price; also Hartridge's "Refraction" and Black's "Eyesight." "CHEMIST," Post Office, Upper Tooting.

Cachet machine, methylated spirit tank, capped oil-bottles, tooth-brush-case, small mirror, optician's trial case, 2-gr. pill machine, small counter-case. **PRESCOTT**, Tethury.

ADDRESSES WANTED.

Address of artistic window-dresser for Soap and Perfumery. "W.," 42 Selwyn Avenue, Richmond.

Address of person undertake typewriting of circulars. State terms, **BOND SMITH BROS.**, Potton.